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THE PRESIDENT'S ADDRESS*

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NEW ORLEANS

I wish to take this opportunity to express my sincere appreciation and thanks for the great honor of having served as your President for the past year.

This meeting, as you well know, is dedicated to our good friend, Dr. Fred J. Mayer of Opelousas. Dr. Mayer, we salute you as a member and past President of this society and one who has always stood for the highest professional ideals and principles, and who has fought, at all times, for a higher standard of ethics. Organized medicine, in this state, owes much to Dr. Mayer and I know of no one better fitted to receive, nor more deserving of the honor thus conferred by this society in dedicating this, our Sixty-Second Annual Meeting to him. He has stood for everything that is good in organized medicine and was ready, at all times, to fight our battles and keep the practice of medicine on a high plane.

We do you honor Dr. Mayer today, as you have done us honor in the past, and we sincerely hope you will be with us many more years that we may be privileged to enjoy your wise counsel and continued friendship. All honor to you.

It is fair to state that in centuries past we had men, such as Hammurabi, Moses, Hippocrates, Socrates, Solomon, Aristotle, Celsus, Alexander, Galen, Galileo, who had as much brain power, intellect, intensity of purpose and idealism as any names that might be selected of men who are active in world affairs today. Why then the marvelous achievements since about 1850? I have asked this question a number of times recently and the usual answer is that we have the accumulated knowledge of the activities of these men over a period of centuries, which gives our people of today a great advantage. How did the experience of centuries help Pasteur in his work? What knowledge of history helped Koch discover the tubercule bacillus, Eberth the typhoid bacillus, Marconi the wireless, or Roentgen the x-ray, or helped any of the many original medical and scientific thinkers of today? It must be true that knowledge of the past centuries has had its influence upon the activities of men of action the last eighty years; but I feel this to be a small factor in our recent marvelous progress.

History is full of records of men who advanced new logical theories and facts in contradistinction to old ones, and paid for their boldness by being ostracized by their fellows, condemned by church and state, expelled from home and country, and in many instances executed. Socrates was forced to drink the hemlock, John Russ burned at the stake, and Galileo was forced publicly to retract his statement that the world rotated in space.

My thought is, that during earlier times men of ability and initiative were hindered in their thinking because of the fear of retribution on the part of the church and state and by society at large. Who knows? Galileo might have been the Edison of his

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age had he been encouraged and honored for his efforts instead of being ridiculed and punished. Since the Renaissance, Harvey, although recognized as a great teacher and philosopher, when he discovered and demonstrated the circulation of blood, instead of being honored and lauded for his achievement, was ridiculed by his fellows, criticized and condemned by both church and state. Pasteur and many others received similar treatment.

When civilization reached the point where the powers of the state, the influence of the church and society at large lauded achievement, encouraged research and investigation, and honored men of action, the world began to move. How fortunate are we of this generation to have lived at a time such as this. I believe that the answer to this marvelous progress is included in the five words "Freedom of thought and action." At no period of the past centuries was freedom of thought and action permitted. Hippocrates and his coworkers made a deliberate attempt to divorce medicine from the dominion and influence of church and state so that they might develop their medical problems in their own way. Considering the times, these men succeeded splendidly, so much so that since that time Hippocrates has been honored as the Father of Medicine. Yet it took more than 2,000 years before his fond dreams really came to pass. As long as the people of the world enjoy this freedom, we will continue to achieve undreamed of heights. Take from the civilization of today this freedom of thought and action, and progress will cease. When progress ceases, we will soon go into decline. We cannot remain static. Is freedom of thought and action being throttled in the world today? I noticed a statement in the press a short time ago where Dr. Fosdick, Chairman of one of the larger of our foundations which awards millions of dollars annually for outstanding individual achievements in all parts of the world, said that the Board had removed from its list individual citizens of certain countries because they could not qualify as freedom of action and thought had been taken from them.

Is there a tendency in many parts of the world to curtail freedom and introduce a sort of managed system? We hear in our own land from the press, radio and from men in high positions, that we must prepare to adjust ourselves to a new sort of civilization; that we are facing new economic problems and are entering into a new era. What sort of new economic and cultural plans have been put into operation? The only new plans I know anything about are those adopted by Russia, Germany, Italy and Spain. In each of these a new and different type of civilization has been set up. In the last type, freedom of thought and action is being stifled and as surely as this continues, progress will cease. I cannot conceive of any new plans of action for which we are being asked to prepare that will not have as one of the chief objectives a form of managed and dictatorial type of government. If the pages of history teach us anything, it is that the moment we stifle initiative, progress wanes. We believe that the people of this country of ours have received better and more humane medical care than those of any other countries in the history of the world. This is true of all classes, rich, moderate, or poor.

Few of us ever pause, even for a brief moment, to realize the joy of living. Our lives are so full of activity we rarely take time to appreciate our happy existence, and are even grouchy and dissatisfied at times. Medical science has done much to bring us happiness and to make life worth living. For instance, we need not live in constant fear of deadly plagues, the very mention of which struck terror to the hearts of our forefathers. The people of this North American continent need not fear bubonic plague, Asiatic cholera, typhus fever, malaria, yellow fever and other diseases, which at one time spread in wicked and disastrous epidemic proportions.

These plagues and many of our common or modern diseases are under subjection through the continuous and persistent efforts of a vast army of health,—1,500,000

strong in the United States,—doctors, nurses, dentists, health workers, research workers, technicians, and numerous other groups or units constituting this great army that is fighting disease night and day, year in and year out, winning battle after battle, and pushing back farther and farther the grim reaper, death. Milestone after milestone has been passed along the march of medical science, a few of which I shall mention.

Anesthesia was discovered by Long, a physician, of Atlanta, and by Morton of Boston, by profession a dentist, working simultaneously between the years 1842-46. As a result of their work, surgery has ever since been robbed of its pain and horror; and thus began the conquest of pain. No longer need the surgeon call in the strong neighbor boys to hold down the patient while he cuts off a leg or opens the abdomen to remove a tumor. No longer need the surgeon depend on the patient's screams to be assured that he is still alive. Since the discovery of anesthesia, many new methods of its administration have been introduced, all aimed at making anesthesia safer and more pleasant for the patient.

Lord Lister, an Englishman by birth, one of the greatest benefactors of mankind, discovered aseptic surgery, and conquered the terrible scourge of blood poisoning following operations, which, previous to that time, was responsible for a death rate of as high as 80 out of every 100 patients operated upon, and which now averages only three or four out of every 100 patients who undergo surgery. Think what this means when we realize that there are performed annually in the United States approximately 3,000,000 operations, for each of which a general or a local anesthetic is given. I need not figure out for you the appalling number of deaths there would be had Lord Lister's discovery not been given to mankind. Now every part of the human body can be explored by the surgeon without the patient's being subjected to pain or to the danger of blood poisoning.

Another outstanding milestone in the march of medical science was passed in 1895 when William Roentgen, Professor of Physics in a Bovarian University, invented the x-ray. With subsequent rapid developments in equipment and operation, any part of the human body can be visualized in the live subject. No longer need the surgeon open the abdomen, the chest, or the skull to find out what is wrong; instead, he can remedy the disease or condition he has skillfully worked out and determined through his own knowledge and examination of the patient, supplemented by the x-ray, clinical laboratory, electrocardiograph, and numerous adjunct facilities to elucidate further or confirm his own findings, and thus he is enabled to practice the art of medicine more accurately and efficiently.

Pathology, the science pertaining to diseased tissue, has advanced beyond all comprehension ever since the beginning of this century, adding vastly to more accurate knowledge of medicine. Of inestimable value is this work in the study of all forms of cancer, which today is engaging the attention of the entire medical profession. Now the nature of the lump, the tumor, or the scrapings from a cavity of the body may be accurately determined within a few minutes by doing a "biopsy" which to the layman means the removal of a small piece of the lump or growth, which is frozen, sectioned, stained, and studied by a competent pathologist. In five or six minutes it is possible accurately to determine the nature of the lump or growth, and this is of extreme importance in deciding the extent of the operation required. Through such a simple procedure, numerous lives are saved annually which otherwise might be subjected to great suffering and death eventually from undiagnosed cancer.

Commencing with the beginning of this century, increasing attention has been given to nutrition and diseases of metabolism. As a result, a new branch of applied medicine has been introduced, which we speak of as diet therapy, or the application of diet to disease. More and more is diet therapy playing an important role in the treatment of many diseases, particu-

larly that group which pertains to diseases of metabolism.

In the memory of most of us of this generation is the discovery of insulin by Dr. Frederick Banting of Toronto, who with his associates, working in his laboratory, discovered that a formerly unknown substance called insulin would control the sugar content of the blood. As you know, the blood has sugar as one of its normal constituents, but, when this sugar is excessive in amount, it becames a poison, and symptoms devolop, which are usually designated as diabetes. The work of Banting and his associates, and the further knowledge of diet therapy and blood chemistry mean that now, more than one million persons in the United States suffering from diabetes are privileged to live and enjoy a comfortable and fairly normal existence.

Shortly after the discovery of insulin by Banting, scientists working in Ann Arbor, Michigan, Rochester, New York, and Boston, discovered that the eating of liver in certain amounts would control that much-dreaded and ultimately fatal disease—pernicious anemia. Now, by taking liver in one form or another, pernicious anemia, a disease that was responsible for many deaths, is under fair control, and those who are so afflicted may enjoy a comfortable and happy life.

Diphtheria had a death rate as high as 80 per cent in some epidemics, but now, through the efforts of medical science, not only is the number of cases greatly reduced through preventive measures, but the death rate in many communities is practically nil. In this accomplishment and in the control of communicable diseases generally, we must not overlook the splendid work done by health departments and allied groups.

No longer does typhoid fever exist to any widespread extent or in epidemic proportions. Medical science and sanitation have almost completely stamped out the disease; rarely do we hear of typhoid epidemics in any part of this country. The appearance of a single case in any community means immediate action and control by the health authorities. Sanitation, vaccination, purification of water and milk supplies, and public education have driven this enemy out of our country, except for sporadic cases. Any community subjected to an epidemic of typhoid fever would practically admit lack of proper control and exercise of general measures of prevention by the health authorities.

I could go on recounting the milestones marking the advance of medical science upon each of which is recorded some victory in making the world safer and happier for the human race. Certain factors of general importance make a background, so to speak, for the great drama of the advance of medical science and the practice of medicine during the last fifty years, particularly since the beginning of this century. A progressive and scientifically educated medical profession, an approved standardized hospital where the sick and injured are treated and an enlightened cooperating public have successfully and effectually waged the war against disease.

Finally, in this great drama of the march of medical science and progress in human salvage, the annual physical examination for everybody has been brought into the arena of disease prevention, and is universally advocated as one of the most effective means of prolonging life and adding years to your life and life to your years. The annual physical examination, if properly carried out, would strike a severe blow on the six greatest killers of the human race, which today, out of every 100,000 population, take the alarming toll of 240 from heart diseases, 106 from cancer, 94 from kidney diseases, 79 from pneumonia, 68 from diseases of the arteries, and 62 from tuberculosis. All these diseases are preventable to a great degree, and could be detected early by an annual physical examination. Cancer, today the second greatest enemy of the human race, if recognized early, can be cured through surgery or the judicious use of x-ray and radium therapy.

Medical science will march on. Disease after disease will be conquered, the public will become educated in how to resist disease; the medical profession will keep

abreast of the march of medical science; the longevity of life will increase beyond sixty, which it is at present; and all this will bring to humanity health, happiness, prosperity, and the joy of living.

I know of no other group in which patriotism, high ideals and the sense of responsibility are present to a higher degree than represented by our American physicians. To no other group would I leave the responsibility with less fear of error on un-American activities. "Strength to your arms and wisdom to your judgment."

At this time I would like to discuss a matter which I consider is well worth your attention.

Recent attacks on the medical profession of the United States have endeavored to create the impression that organized medicine is divided against itself and that many physicians are in revolt. The statement is untrue. We must, however, admit that a few straggling members did sign up in favor of socialized medicine some time ago but we are very thankful that this list of 400 did not play much part, or have much influence on the whole.

We have been assailed by the Government of the United States with an indictment that we constitute a monopoly and that our actions through our delegated authorities in the American Medical Association have violated the laws of this country as they apply to interstate commerce and restraint of trade.

I, for one, would like to have the American people know that I personally as a physician have been indicted by the United States Government; that the impugned reflection on the integrity of the American Medical Association is considered by me as a reflection upon myself. I believe that the rest of you feel much the same.

I should like to have every citizen of the United States know that his family physician has been indicted. Can you make that mother whose child's life has been saved think that her doctor is a knave? Can the millions of people that twenty-five years ago would have died of typhoid, diphtheria, diabetes, cholera infantum and other diseases, and who walk the streets today and enjoy life's bounty, be made to say that American medicine deserves indictment? The blind have been made to see, the lame to walk, and the ill restored to health under our American system that has never defaulted an obligation nor proved unfaithful to a trust.

I would like to have the American people know that the medical profession of this country stands united in opposition to this indictment and the attacks made on its integrity. We always have presented a united front, not only in the battle for the best public health service for the people, but in the constant seeking for better ways of providing medical service and care. That this united front exists is proved by the great attainments made by American medicine since the American Medical Association was created in 1847 for the initial purpose of improving medical education. Today our medical schools are the outstanding ones in the world. Our research centers are leading the world into new avenues of medical knowledge. Today the medical world comes to America for its post-graduate studies instead of our American physicians going to foreign countries for further studies, as was true a century ago. A united profession has attained all of these things, not for themselves but for the people, and a united profession will continue to oppose all that is inimical to the welfare of the people and fight for those things which but serve the people's interests.

What are just a few of the things which this system of medical care has accomplished in the United States? It has resulted first in the development of medical education to the highest level ever reached in any country. The young men graduating in medicine today are the equals in medical training and skill of the graduates in any country in the world. Second, after a battle of more than thirty years by the American Medical Association, almost single-handed, the evils of patent medicines and quackery have been brought almost completely under control. Third, the profession, through research and experience,

has brought to light innumerable new methods for the diagnosis and treatment of disease.

And fourth, the medical profession is today, from one end of this country to the other, giving higher quality of medical care to the people than the world has ever known. That changes are necessary in our present system in order that there may be continued progress, no one will deny. With regard to the nature of the changes there is wide difference of opinion. The medical profession is at present advocating some very definite constructive measures, which, if put into effect, would result in improvement in medical care.

First, it recommends most earnestly and as a fundamental necessity a change in the method of caring for the indigent so that ultimately the entire community may assume, at least, part of the burden which has heretofore been borne entirely by the medical profession.

It has long been a tradition of the profession that every person, man, woman and child, regardless of economic or social conditions, is entitled to medical care when he is sick or injured. In accordance with this tradition, the physician has always given free medical care not only to the indigent who are dependent for their total support upon the community, but to the poor who have only a bare subsistence wage to support themselves and their families. This is the only means provided by modern society for the medical care of the poor.

I mention this not to gain your approval of the medical profession for an altruistic practice but because the medical care of the indigent has become an important social problem. If every community would accept the responsibility of taking care of its indigent sick at public expense, the problems of the medical care of the low and moderate income groups would immediately assume different proportions.

Next, the profession recommends the adoption of systematic plans in every community to provide adequate medical care to each and every class of its population. This involves the establishment of central admitting bureaus for hospitals and free clinics. The physicians and dentists will be only too glad to take care of the patients of moderate means by arranging with them to pay their medical and dental bills in installments, and the total charges may be adjusted to the patient's ability to pay.

Third, the medical profession is giving support to the establishment of non-profit group hospitalization plans in many communities through which employed persons may secure a certain number of days' hospitalization in a given year for themselves or their dependents by paying a small monthly premium.

Why does the medical profession approve group hospitalization and disapprove the usual health insurance plan? The reasons are plain and hardly escapable when once stated. Group hospitalization is a plan in which a non-profit corporation contracts with individuals in employed groups, upon the monthly payment of a certain sum, to give to the individual a certain number of days' hospitalization in a given year, the kind of accommodations and services to which he is entitled being definitely specified. The non-profit corporation at the same time contracts with each hospital of the community to pay a certain specified sum per day for definitely specified accommodations and services for the number of days for which any of its beneficiaries are hospitalized up to the limit of the contract, which is usually twenty-one days in a given year.

The important element in this arrangement which makes it sound financially and socially is the very definite and specified limitation upon the benefits to be received. So long as the limitations are respected the plan is workable and sound. Contrast with this the usual health insurance plan in which a non-profit corporation agrees to give to an individual for a certain specified monthly payment, medical care unlimited as to quantity and impossible of specifications as to quality. It is this inherent impossibility to place limitations upon the amount and kind of service to be rendered which makes such plans unsound

financially and which give rise to many of the evils growing out of them.

If we are finally to adopt on a wide scale any type of health insurance in this country there are certain facts established by European experience which should be known. No advantage can be gained by copying the mistakes of Europe. We need not experiment in this country with voluntary types of health insurance because more than fifty years of European experience has proved that voluntary insurance always fails and is finally superseded by compulsory insurance. So long as membership in a voluntary insurance group is increasing it can remain solvent but when membership becomes stationary it invariably fails. When failure is imminent, or has overtaken a number of the voluntary groups, compulsory laws are passed and a great block of the population is compelled to participate in the plan. The important thing to remember is that all of the voluntary plans finally become compulsory insurance under state control.

There have always been optimistic promises made in each country when the plans were before the voters. It was claimed that they would reduce the sickness rate and also the mortality. This has not come true. No insurance country can show lower rates either from sickness or death than the non-insurance countries. It is a known fact that the sickness rates in insurance countries practically doubled over the rates prevalent before insurance went into effect and over the rates in those countries which do not have insurance.

It was said that because of better organization the costs of medical care would be less with insurance methods. The fact is that because of the increased sickness rates and the high cost of administration, expenses are greatly increased.

Finally, it was alleged that a better quality of medical care would be obtained, but it is a notorious fact that the crowded rosters of insurance and contract doctors furnished a very poor quality of medical care.

The voluntary insurance plans called "group health associations," and various other names, which are at this moment springing up in this country, are repeating these old and discredited promises. Again we are being told that they will so improve the health of their subscribers, especially through periodic examinations, as to reduce the mortality and sickness rate among them. It can be confidently predicted from experience that the death rate will remain unaffected and that the days lost from sickness will be greater in the insured group than in a like group of uninsured.

It is the fashion at present to point to these voluntary insurance groups as valuable social experiments. In the light of European experience no such experiments are needed, but there is one unsocial aspect of their operation which has not been sufficiently emphasized. They are of necessity confined to members of employed groups; when a person loses his job he loses his insurance. If he is then without funds, both he and his dependents must be taken care of by one of the physicians of the community who has had no participation in the group health association and who, year in and year out takes care of his patients when they are out of employment just as he does in their years of prosperity. This illustrates the unsocial character of such experiments. They apply only to members of those favored groups who are able to pay insurance premiums for themselves and their dependents, and to them only while they have a job.

If we are finally to have insurance medicine in this country, let us not delude ourselves into experimenting with the voluntary or cooperative type; let us adopt the only kind that can survive, namely compulsory insurance. Let us go into it with our eyes open, remembering that it necessitates a wage and pay roll tax and a government subsidy with a high degree of governmental control to make it successful. Let us recognize the fact that there must be in a country like ours much political control and manipulation and establishment of an elaborate bureaucracy for its administration; and finally let us be satisfied with medical

care of much lower quality than we are receiving at present.

The medical profession is a small body of men, only about 150,000 in a population of 130,000,000 people. The profession must adjust itself to whatever social system the 130 millions decide to adopt. We are, however, because of our special education and training, in a position to judge of the effects of proposed methods of medical care. It is our conviction that the present system can be and is being adjusted to every need of the people without the evils of health insurance or state medicine.

We hear a great deal nowadays about "salvaging civilization." Few are agreed as to how it is to be done, but certainly it is impossible to imagine any civilization in which the discoveries of medical science will not be incorporated. No matter what sort of banking or economic or social system is established, physicians are not going on without using the knowledge of the circulation of the blood, of the bacterial cause of infection, of aseptic surgery, of the obstetric forceps, of the action of anesthetic drugs, of the use of opium, digitalis, and mercury, of the principles of refraction of the eyes. Whatever else is "salvaged" these most assuredly will be saved.

For devoted service, for the highest expression of generosity and good will, the physician occupies a place quite incomparable. The story told by Ian Maclaren in the "Bonnie Brier Bush" of old Dr. McLeod is not exaggerated or overdrawn. It is a tale that may be duplicated in any community. One must believe concerning men of this type that they are motivated by the highest of impulses, and that their ministry is associated with that of the Master, who never turned away from those who were bruised and broken in body.

Like a team of two horses slowly pulling a heavy load out of the mire, the family physician and the specialist are, side by side, slowly but surely liberating the human race from the depths of disease. Their combined value cannot be measured in dollars and cents but rather in years of additional life. Together they constitute the greatest team on earth.

REFLECTIONS ON EDMOND SOUCHON (1841-1924)*

BY A FORMER PUPIL

ISIDORE COHN, M. D.
NEW ORLEANS

"LEST WE FORGET"

Those who entered Medical College in New Orleans at the turn of the century (1903), were extremely fortunate in that the faculty of the Medical Department of Tulane University was composed of seven outstanding men. Each possessed definite characteristics, each contributed something to stimulate the young men then entering upon the threshold of their medical studies, something to inspire the boys of that day; something to impress them, so that memory like an illuminated mirror would "bring back the light of other days." (With apologies to Thomas Moore.)

Of the seven distinguished men who formed the faculty, only one remains to cheer, stimulate, and to inspire us, Rudolph Matas.

When we mention the names of Chaillé, Souchon, Metz, Reynaud, Lewis, Elliott, and Matas, we do so in reverence and appreciation.

The subject of this sketch, Professor Edmond Souchon, "was unique, he had his characteristics, and he was peculiar in that there was no one else just like him."

From the very moment a student entered the course in anatomy, he was reminded of several things: (1) That our professor differed from Gray in that "Gray was an anatomist, but he, (Souchon), was both an anatomist and an artist." (2) He impressed upon us that the most important book from which we could learn anatomy, was the book of nature, that is, the human body.

Those who were fortunate enough to study anatomy under Professor Souchon, will remember his "Resumé," and his quizzes. This Resumé of Dr. Souchon's was characteristic of the man. It was written in accordance with a statement made by him in the pamphlet entitled "Methodic Descrip-

*Read before the Orleans Parish Medical Society, November 11, 1940.

tion of a Surgical Disease": "There is a place for everything and everything should be said in its place. We should say at the beginning what belongs there, and not say it in the middle of the description. Again, we must say in the middle of it what belongs there and not say it at the end." (Article published in the A. M. A. July 11, 1896.)

Souchon's "Resumé" was written in catechismal form. These "Resumés" were not easy to obtain, and this he knew full well. For that reason he would have each week posted in the Anatomic Museum, under glass, at least six to ten typewritten pages of questions and answers, which had to be memorized for the following Tuesday night's quiz. This quiz was typical of our Professor. The quiz was held on the third floor of the Richardson Memorial Building on Canal Street, and the setting for the room was something not to be forgotten. The desk behind which he sat was a wooden anatomic table which was covered with white canvas, so familiar as a covering for anatomic material. Behind this table there was a small box, and immediately behind that was a chair which was raised on galvanized supports. Promptly on the hour, Dr. Souchon would appear and seat himself in the chair, the box served as a footstool. Seated beside him he would have a member of the class who would read the question to the student whose name Professor Souchon called. If the answer was not promptly forthcoming, our Professor would turn to the reader and say: "Read it to him, he does not know it—if he does not know it he cannot guess it. I will give you a zero, I will keep the one for myself," and with that invariably he would give a characteristic chuckle.

Some of the class who had not properly prepared for the quiz would sit in the higher tiers of the amphitheater with a book open in front of them. At times they would be startled by getting a question not in the order in which they were reading the answers. The student would read the answer to the question either before or after the one which was asked. This would always evoke from Professor Souchon, the remark: "You are reading the wrong answer."

Some of the questions and answers were unique. A favorite question with him was: "What is the peculiarity of a certain organ?" The answer: "It is characteristic in that it is unique, there is nothing else like it in the human body." One of his favorite stumpers was, "What is the relation of the two carotids at their origin?" The answer which he required was, "The external is internal to the internal at its origin." No other answer would suffice. You either knew the answer which he desired or you did not. There was no way of guessing with him.

His lectures on anatomy were interesting as they were illustrated by beautifully colored slides. The mere mention of these lectures accompanied by lantern slide demonstrations will recall to the minds of those who took these lectures that he utilized the services of "the professor of practical hygiene" (as the janitor, Alfred, designated himself). One can almost hear Professor Souchon say, when the slide was not clear, and the light was not properly focused—"Alfred get the blue out of the corner."

It was his conviction that in order that one might do surgery, he must know anatomy. One of his favorite expressions with reference to locating a particular structure was: "If you know where it is and you hunt for it where it is, you will find it. If you do not know where it is, you will not find it," and again he would chuckle.

On one occasion I was so impressed by his knowledge of the relations of the most minute structures, that I ventured to ask him the question: "Professor Souchon, how do you remember details so well?" His answer was: "I studied it seventeen times, I forgot it sixteen times, but I remembered it the seventeenth time," and with that came his characteristic chuckle.

May I pause at this point to remind others that there is a tremendous amount of inspiration in that remark. Anyone who would qualify to do surgery should continually review his anatomy.

In the wards and in the operating rooms the students were taught diagnosis by method. They were particularly charged not to make the diagnosis of rare conditions,

but to think in terms of the more common conditions. For those who would get a clearer view and a more detailed one than I can give at this time, I would refer you to his papers "The Methodic Description of a Surgical Case"; "Pecularities of the Surgical Diseases of the Neck," and other similar papers.

In the operating room there are two pictures which stand out vividly. The first was that of Professor Souchon preparing to do a hemorrhoid operation. He would stand either to the right or to the left of the patient while dilating the sphincter, then turning to those of us in the amphitheater he would say: "I give you the benefit of my twenty-five years' experience; when operating on the rectum stand to one side."

On one occasion having noted that he so often in the early weeks of the College term had amputations for the class, I ventured to ask him why it was that he picked out an amputation. His answer: "The boys want to see blood and I will show it to them."

At this stage I must pause to compare the operating rooms of two of our teachers. One —Dr. Souchon, the other, Dr. Matas.

In doing an amputation, Dr. Souchon was in the habit of using a large amputating knife. After he had made the circular section of the muscles, and his first assistant, his son Dr. Marion Souchon, had ligated all the vessels for the control of bleeding, Dr. Souchon would step up and with the old large butcher saw section the bone. Having done this he had completed his part of the operation, the remainder was finished by his associate Dr. Marion Souchon.

Probably the next day, we would go into the amphitheater and Dr. Matas would have an amputation. By contrast he used the scalpel and a Gigli saw. We were thus seeing the transition between those who had been trained in the pre-Listerian days when speed was the keynote, and one whose training came after the beginning of the Listerian or antiseptic period.

One cannot omit those reflections of memory of another phase of our distinguished teacher, the picture of him in his museum of anatomy. If he happened to be walking through and some of the students were studying the specimens in the jars, he would come up and point out the interesting points on his specimens. I do not believe that anyone ever got greater joy out of an accomplishment than did Dr. Souchon out of the method which he devised for preserving anatomic material in its natural color.

The museum of anatomy, which was Dr. Souchon's pride and joy, is the established memorial to his continuous service in anatomy at Tulane from the day of his return from France in 1866.

This story is best told by Dr. Souchon himself in his reminiscences of Dr. T. G. Richardson. The loyalty and devotion expressed in these reminiscenses prompts me to abstract rather freely from Dr. Souchon's own pen.

"In November 1866, on the day of the Feast of the Dead I landed in New Orleans after an absence of over ten years in Paris. I had in my pocket a letter from Dr. Marion Sims to Dr. Richardson. The day following my arrival I called upon the doctor to present it. After reading the letter from Marion Sims, Dr. Richardson extended his hand, uttering a few words of greeting. As soon as his hand touched mine, and I felt the soft and firm pressure, there came from it and passed through me a magnetic fluid that went direct to my heart and gladdened it. Richardson was busy and he bade me return soon, tomorrow. Indeed I returned and we had a long talk on surgical matters in Paris; about Dr. Sims and his achievements and glory; about my plans for the future. When I arose after a longer stay than I should have made, he stepped to his desk and handed me a key, he said, 'I would be glad if you would use this office and these books and instruments, in fact, all that is in here, until you have a place of your own'."

Dr. Souchon relates that one day Dr. Richardson came to his office a little annoyed, "because his prosector had failed to come on time to prepare the dissections necessary for his lecture. I at once eagerly seized the opportunity to do something that might please him, and offered to do the dis-

section at once. From that day on I did all his prosection and attended all of his lectures to learn anatomy in English and how to teach it properly."

I would not be worthy of the opportunity which is mine to present a biography of Souchon if I did not let him give his own picture of his distinguished friend Dr. Richardson, Professor of Surgery at Tulane, who, with his wife, gave the original Richardson Memorial on Canal Street. Dr. Souchon said: "Dr. Richardson—as an operator especially he had no superiors, planning carefully and deliberately an operation and executing it fearlessly to the very end. To him the word duty came next to the word gospel; he was truly a living example of the accomplishment of all duties; he was thoroughly self-sacrificing to the extreme. His friendship was profound and as true as steel. His veneration for his old friend and preceptor Dr. Gross, was most profound and touching. We were all very much struck by it when Dr. Gross came to New Orleans in 1880. No wonder that one who could feel so keenly gratitude and friendship should inspire as he did himself most unselfish and unremitting admiration and respect.

"Dr. Richardson died without having witnessed the completion of the new Tulane Medical College, which was an object for several years very dear to his heart. He realized more than any, even during his martyrdom, how important it was to have a building and equipment that would enable this great city, so beloved by him, to compete with the other cities in the thoroughness of medical education. Thus his influence and example, so great during his lifetime, will stand for many and many generations endearing his name to all who love science and humanity." (This building has since been demolished. Its place is occupied by a gas station at Canal and Villere.)

Probably the prosection which gave Dr. Souchon greatest joy was that of the celebrated case of Andrew W. Smythe, who for the first time cured an aneurysm of the third portion of the subclavian by ligation of the common carotid artery in 1864 (secondary hemorrhage occurred on about the tenth day, at which time ligature of the vertebrae was performed and the aneurysm closed). "Ten years later the patient came back with a tumor as large as ever. The internal mammary was ligated but without benefit. The sac threatening to burst, was opened with the hope of plugging the opening of the aneurysmal artery but in vain. Plugging en masse was effected without avail. The patient died of hemorrhage within forty-eight hours. The autopsy was made by the writer. It showed that the return circulation was due to the anastomosis of the perforating aortic intercostals with the branches of the sub-scapular in the substance of the great serrate muscle, through which the blood flowed freely through the axillary into the sac.

"A few hours after the poor celebrated patient had died, the body was carefully embalmed and with great solicitude injected with cocoa butter and carmin, which gave a most penetrating injection. As soon as ready, I started dissecting it, with most intense and anxious interest and with as much celerity as possible because the friends of the dead man were chafing to have the remains to bury them in a style befitting such an illustrious personage. He had no family, but belonged to a colored association whose members were very proud of the great celebrity the man had acquired as they judged from the attention and curiosity which followed him in all his movements.

"They were pressing and impatient in their demands for the body and we were giving them all kinds of excuses hoping to wear out their patience. I for one was doggedly determined that they should not have him without dividing with me, and I wanted the lion's share.

"One morning as I was getting through with the dissection, I heard a great row in the waiting room of the dead house. This was then situated on Gravier Street, whereas the entrance to the hospital was in front, of course, on Common Street, a distance of about 300 feet.

"I recognized the voice of Dr. Smythe clamoring over the others trying to pacify them again. He had a great influence over

them being himself a Republican, but this time I thought his prestige was fast ebbing away and I decided upon a bold coup d'état to preserve the to be world-renowned specimen. So I quickly separated the interesting parts from the balance of the corpse, wrapped them up in an old sac that happened to be lying there and pushed the package out through a back window to an assistant keeper of the dead-house, telling him to carry it to my coupé which was standing in front of the hospital. I then leaped out through the same window and took the garden-walk opposite to the carrier, that he might not be suspected. I reached the front door of my carriage before him. Taking the much coveted specimen from the carrier and placing it tenderly on the seat next to me I drove off at once to the college, hugging closely my precious and ghastly companion.

"After resisting the dead man's friends as long as he could, Dr. Smythe, had to yield to them. But judge of their shock and horror when they saw all that was left of their saint, two legs with the viscera and a left arm, without being able to find out where the balance had gone and by what way. I do not think they know it to this day. They had to be contented with what they could get and they made as much over it as if it had been the whole of their friend. Dr. Smythe himself was much surprised and as much at a loss as they but happily so. He was very glad when he learned where the specimen had gone. It was some satisfaction, he said, to be able to prove that all arteries he said he had ligated had really been tied.

"From the college I moved the specimen to an adjoining building for fear that the enraged friends might institute a search for him. There he remained, quite unknown to all but myself in an old whiskey barrel filled with water and alcohol. I could ill afford to keep him in a finer style, however deserving of it was he. Besides, I did not care to exhibit him much, anyway.

"After a year or so later Professor Richardson asked me where the famous dissection was. Having told him and what a drain he was on my shallow treasury he asked me if I would consent to have it sent to the Army Medical Museum, in Washington City, to which I gladly consented at once. There I felt sure he would be treated in a manner becoming such a unique relic.

"Dr. Richardson and Dr. Groenvelt arranged to have it sent to Washington, where it now rests in peace and security in all its glory in a beautiful glass box with a fine crystal lid, bathed over head in pure alcohol, the admiration of all who love subclavian aneurysms of the third portion."

Dr. Souchon's medical career began in Paris in the fall of 1860: "I entered the old charity hospital on the old rue Jacob as a benevolent student in the service of the venerable and the world renowned Professor Velpeau. It was my first beginning in the study of medicine. I managed to be on as fairly good terms with Professor Velpeau as a little insignificant nobody like myself could be with such a magnate as was the great Velpeau in such a place as the great Paris at that period."

Early during the year of 1861, while attending to his duties in the hospital in Paris, he chanced to meet an American visitor, who proved to be J. Marion Sims. The meeting of this distinguished American is told in Dr. Souchon's own characteristic way: "I was putting on my apron when the stranger came up to me, and after a most suave bow, said in a very low and deliberate manner, that the Frenchman that he thought he was addressing might have some chance of understanding: 'Will—Professor —Velpeau—be—here—today?' I burst out laughing and answered him in fluent English: No sir, Professor Velpeau is absent on his vacation and will not return before two weeks. The beautiful face brightened up at the sound of the English language where and when he so little expected it. 'Where are you from that you speak English, said he?' I am from the South, from New Orleans, said I, thinking that would cool his enthusiasm if he was a Yankee. But, far from it, he grasped my hand and pressed it so as to crush it. 'Why, I also am a Southerner; I lived a long time in Montgomery, Alabama.' That made us friends at once.

" 'Well,' said he, 'I am Marion Sims, now living in New York, who has invented a method of operating for vesico vaginal fistula with almost invariable success.' He looked at me to see if the name had made any impression on me, but it fell flat; we had never heard of Dr. Marion Sims in Paris.

"He said he had a letter for Professor Velpeau from Dr. Valentine Mott, of New York; that he was anxious to see the professor to get a patient to operate on before him and thus to demonstrate his method. 'Well,' I said, 'the professor will be here in some fifteen days,' soon enough for your good, I thought to myself.

"Finally Professor Velpeau arrived, and I sent word to Dr. Sims immediately; he soon came to present his letter, which Velpeau read at once and fluently, but when it came to speaking to Dr. Sims, he was at a loss to express himself and looked around for me.

"After a few, very few words, Velpeau said to me, 'Well, what does he want?' I translated the sentence to Sims, who at once modestly but firmly answered, 'I want a case to demonstrate my operation, if the professor will be kind enough to procure one for me.' 'All right,' said Velpeau, 'I will get him one,' in a way that showed he had but little confidence in the final result. Then he turned around without a hand shake or a word more to Sims and went on with his visit.

"From that time on the doctor's history is known to all Americans proud of the surgical genius born in our great land.

"One day he said in a burst of kindness: 'How fortunate it was for me to have met you that morning I went to the old Charité, I was so thoroughly discouraged that I made up my mind to go back home.'

"One day in his house, in the rue de Balzac, we were alone in his studio when he all at once asked me: 'How are you getting along here, anyhow.' 'Well,' said I, 'I am starving as slowly as I can. All resources from home have ceased since the war began, and but for a little position of $20.00 a month, which Professor Velpeau's influence secured for me, I would have succumbed to hunger and cold by this time.' He replied: 'Anything you need I will be glad to give you; I am making plenty of money now.' I thanked him very much but gratefully declined any assistance."

The following year Souchon found himself in great need and he went to Marion Sims. "After a little trivial talk I summoned up all my courage and said to him: 'Doctor, you once told me that if ever I was in need to come to you, and that you would help me along. Well I am now in the greatest distress and upon you depends my whole future; unless you give me today the assistance you offered me two years ago I must give up my study of medicine.' 'Oh, no,' said he, 'don't do that. I will help you certainly. How much do you want?' 'Thirty dollars per month will suffice,' said I. 'What,' said he, 'a dollar a day. Oh, no, take two.' I thanked him very gratefully but consented to accept only one dollar and a half a day, remarking that I might never be able to return that little even. 'All right,' said he, 'I will take my chances on that.' He retired to his library and soon returned with a check for the first month in advance, and also for several hundred francs to buy some little furniture and clothing which he said I very likely needed. I should think I did need them. From that time the check came every month, no matter where he was —in France, England, Germany, or America. He never forgot it once, and when it happened, very rarely, that he was a few days behind, he would write a few words of apology."

This financial aid, evidence of friendship, Dr. Souchon never forgot. In closing his reminiscences of Sims—Souchon said: "He was surely one of the most magnetic men I ever met, and he made such a deep impression on me by his genius, his energy, his courage, his goodness, his kindness, his gentleness that for many years of the early part of life he was the model and the guiding star I strove to follow."

As a token of his great appreciation, and loyalty of Sims, Dr. Souchon named his son Marion after his own benefactor.

The second epoch-making date in his life was his meeting with Dr. T. G. Richardson, through the good offices of J. Marion Sims. As we have seen he became Dr. Richardson's assistant and prosector in the Department of Anatomy. In 1872, he became the demonstrator of anatomy in the Medical Department in the University of Louisiana, afterwards Tulane. In 1885, he was elected Professor of Anatomy and Clinical Surgery, which chair he filled until 1908. He retired in 1908, with the title of Emeritus Professor of Anatomy and Clinical Surgery.

The memoir of Dr. Souchon, for the American Surgical Association, was written by Dr. Matas. "In surgery he was essentially an operator of the anatomical era. He had been drilled in the quick, typical, and methodical manual of the French School of the sixties, where the traditions of the preantiseptic period still lingered and rapidity was still held at a high premium. He naturally excelled in all operations which required a knowledge of anatomy. His monographs on the subclavian artery and on dislocations of the shoulder joint will remain conspicuous landmarks in the history of these subjects and are undoubtedly the most enduring literary monuments of his surgical career."

Dr. Souchon was elected President of the State Board of Health of Louisiana on January 31, 1898. One of his first acts of his administration was to prepare a sanitary code which embodied all the health laws of Louisiana. This book, of over four hundred pages, is now regarded as the most complete and useful guide to the health laws and sanitary regulations of the state.

Dr. Souchon served as President of the State Board of Health for seven years, under three Governors, and when he resigned on January 8, 1908, he left a record of efficiency and accomplishment that fully justified the expectations of his friends at the time of his election.

In speaking of Dr. Souchon's personal characteristics, Dr. Matas said: "He had two dominant traits that over-shadowed all others, his passion for punctuality and method. His day was planned for the twenty-four hours, in which every hour was accounted for on a predetermined schedule. He chafed and fretted under irregularities of any sort that interfered with the prearranged distribution of his day's work. He rose before dawn and had completed his more pressing rounds by the time most men were sitting at breakfast. He had a remarkable appreciation of time and his appearance at a consultation marked the hour of the day as faithfully as the sun. His passion was order; system and classification was consistently carried out, even in the most ordinary cares of the household. Disorder was as distressing to him as his rigid discipline was uncomfortable to others not trained to his system.

"Though seemingly unsentimental at times and with his attention wholly engrossed in the business at hand, he was capable of great outbursts of enthusiasm and expression, which he displayed with all the volubility, vivacity and gaiety of the French that was in him. His loyalty and devotion to Marion Sims and Richardson, who had befriended him in his struggling youth, will always be quoted by those who knew him as proof of the undying quality of his friendship and affection."

In proof of this last statement by Dr. Matas with reference to Dr. Souchon's undying quality of friendship and affection I quote from the editorial in the New Orleans Item, September 29, 1894:

DR. MATAS THE MAN

"The medical faculty of Tulane University has won the approbation of the community by its selection of Dr. Rudolph Matas, as the successor to the late Dr. A. B. Miles. Dr. Matas is recognized as one of the ablest surgeons in the United States, and when Tulane University made a tender of the chair of surgery to a stranger, surprise and dissatisfaction were plainly manifested by the medical profession and the public of New Orleans.

"Dr. Tiffany, the gentleman first selected to succeed Dr. Miles, must have been advised of the feeling against him, and it is quite probable that this fact largely influenced him in the declination of the honor

which had been offered him by Tulane University.

"The question then arose, who shall be the man? The two surgeons most prominently mentioned were Drs. Matas and Souchon, and it was decided that a choice between them would have to be made. Both possessed splendid qualifications, both had warm friends. Who shall be the chosen one?

"The faculty is to be congratulated upon its action—every one approves it. Dr. Souchon himself is delighted, for he worked heart and soul for the success of Dr. Matas.

"What a splendid instance of friendship and disinterestedness was that furnished by Dr. Souchon. Himself a surgeon of the highest repute, and by university rules, next in succession to the chair of surgery, his friends urging his promotion and nothing to be said against him—he throws the full weight of his influence in favor of Dr. Matas, who was a step below him in professorship at Tulane University, and relieves the faculty of all embarrassment by himself urging and inducing his friends to urge the selection of Dr. Matas. A noble man, Dr. Souchon.

"And what did Dr. Matas do? Labor with all his might in the interest of his friend and confrère, Dr. Souchon; he did all he could to prevent the gratification of the dearest of his own heart, in order that Dr. Souchon might be the man to fill Dr. Miles' place.

"The respect of the public goes to these two distinguished surgeons. They have proved in this contest that they were two of nature's noblemen; that their qualities of heart were equal to their qualities of head—that they were men in whose character, as in whose professional skill people can repose the most implicit confidence."

What of Dr. Souchon's accomplishments. As a result of his habits or precision in method, the memorials which he left behind stand as classic monuments for those to whom duty well performed is a human service which is its own reward.

Dr. Souchon listed in his pamphlet entitled "Original Contributions of Louisiana to Medical Sciences," many of his own accomplishments. From these I have selected a few:

1. Preservation of anatomic dissections with permanent color of muscles and organs by two methods.

2. Founded the Souchon Museum of Anatomy at Tulane University.

3. Complete history of drilling holes through the skull to explore with syringe and needle.

4. First complete history of the treatment of abscesses of the liver by aspiration.

5. Wrote the first formal sanitary code in America for the Louisiana State Board of Health.

6. Designed the floor plans of the Richardson Memorial School of Medicine of Tulane University. It was the largest and most elaborate under one roof medical college in America.

We are fortunate that we can claim as our heritage that we had Edmond Souchon as one of our teachers. He never let us lose sight of the importance of method in study, precision in knowledge, and punctuality in attention to duty.

By his own life and acts he left with us a beautiful story of gratitude and devoted friendship. These were the components of the character of one whose life's work and accomplishment should stimulate the student of medicine to emulation.

"Lives of great men all remind us
We can make our lives sublime,
And, departing leave behind us
Footsteps on the sands of time;
Footsteps, that perhaps another,
Sailing o'er life's solemn main,
A forelorn and shipwrecked brother,
Seeing, shall take heart again.
Let us, then, be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait."

(A Psalm of Life, Longfellow.)

TREATMENT OF POSTOPERATIVE ADYNAMIC ILEUS AND OBSTRUCTION OF THE SMALL BOWEL WITH THE MILLER-ABBOTT TUBE*

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INTRODUCTION

Intubation methods of decompressing the gastrointestinal tract have become, during the past several years, extremely important in treating intestinal obstruction and postoperative adynamic ileus.

Matas, Ward, Bassler and others were early advocates of gastrointestinal decompression for the relief of harmful accumulations of gas and liquid contents in the upper reaches of the intestinal tract. Wangensteen and Paine advocated continuous duodenal drainage.

In 1933, Miller and Abbott demonstrated the use of a double-lumen, balloon-tipped tube for intubation studies of the small intestines of animals. By this method it was possible to study the nature of the secretions in various parts of the gastrointestinal tract, the influence of changes in gastric acidity on intestinal secretions, and the effects of various drugs on intestinal motility.

However, it was not until February, 1938, at a joint meeting of the New York Surgical Society and the Philadelphia Academy of Surgery in Philadelphia, that T. Grier Miller, W. Osler Abbott and I. S. Ravdin first suggested the clinical use of such a tube in intestinal obstruction. Since that time a number of reports from different localities indicate that intubation of the small intestine by means of a double-lumen, balloon-tipped tube is an important advance in the treatment of intestinal obstruction and postoperative adynamic ileus. Miller, Abbott, Wise, Pendergrass, Karr, Noer, Johnston, Penberthy, and others have reported successful clinical use of this intestinal intubation method.

At the suggestion of Dr. Urban Maes, this study concerning the value of the Miller-Abbott tube in the treatment of obstruction of the small intestine and adynamic ileus has been made for the past eighteen months on the Surgical Service at the Touro Infirmary. The results have been so gratifying as to indicate that this procedure has completely revolutionized the treatment of postoperative adynamic ileus and obstruction of the small bowel, and the method has been used in a sufficient number of cases to justify certain conclusions in this preliminary report.

Herein we shall discuss the pathologic physiology of paralytic ileus and obstruction of the small bowel in order to explain the rationale of treatment, and we shall point out the results obtained in 30 of our patients.

PATHOLOGIC PHYSIOLOGY

Once obstruction of the small bowel exists, even to a slight degree, if it is not treated, it may pass a transitory state and produce progressing intestinal obstruction.

Because the stomach and bowel secretions continue but do not pass on, there is an accumulation in the bowel with distention. The bacteria in the bowel content increase very rapidly, as do the secretions. Some of the bacteria are gas producing; other sources of gas are swallowed air and the diffusion of carbon dioxide from venous blood. Ultimately, this retarded content of the bowel, because of chemical and bacterial action, becomes very toxic. As a result of distention and toxicity, the increased pressure in the bowel compromises the circulatory pressure, necrosis and digestion of the mucosa occur, and liberation of another toxin results. The distention may increase until relief is obtained by overflow into the stomach, with vomiting, or the distention may cause paralysis, thus establishing a vicious circle. The effect of distention on the dynamics of intestinal activity and on respiration and circulation has been adequately pointed out during the past few years.

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REPORTS IN THE LITERATURE

The part which distention plays in obstruction has been reviewed by Herrin and Meek. Van Zwalenburg showed that intra-intestinal pressure of 90 mm. of mercury delayed the flow of blood through the intestinal vessels, while a pressure of 130 mm. of mercury stopped it entirely. Dragstedt, Lang and Millet found that the duodenum, jejunum and ileum were sensitive to increase in the intestinal pressure, in that order. Burget and his associates have shown that in isolated intestinal loops distention results in vomiting, anorexia and, finally, rupture of the loop and peritonitis, while these factors are not present as long as distention of the loop is prevented. Herrin and Meek, attempting to explain the symptoms and fatal outcome which follow intestinal distention, found that mechanical distention of loops completely separated from the continuity of the gastrointestinal tract resulted in: (1) A depression of activity; (2) retching; (3) loss of appetite; (4) vomiting; (5) rapid pulse and, finally, (6) death. There occurred also a decrease in the chloride concentration, a loss of plasma, and a rise in the non-protein nitrogen. The hemoglobin increased considerably and as a rule there was a moderate increase in the alkali reserve.

Plumier, Thorington and Schmidt, Frey, Dmitrenko, McIver, and Runge have all studied the effect of increased abdominal pressure on arterial or venous pressure, or on both. Thorington and Schmidt showed that marked increase in intra-abdominal pressure so influenced the circulation of the kidneys as to reduce seriously renal excretion.

Brams, Katz and Kohn have reported the effect of abdominal distention and release of such distention on the blood pressure in the carotid artery and in the veins above and below the diaphragm. They have shown that rapid or even gradual increase in intra-abdominal tension may profoundly affect the dynamics of circulation. After release of marked abdominal distention which had persisted for some time, the fall in the arterial pressure was as much as 40 mm. of mercury.

Beecher measured the effect of laparotomy on the respiration. It is, of course, well known that distention decreases the pulmonary ventilation. Churchill and McNeil described a marked reduction of the vital capacity following abdominal operations.

It has been pointed out by Dragstedt, Gatch and others that a poisonous substance of bacterial origin which is not absorbed by the normal intestinal mucosa is absorbed when that mucosa is damaged by distention. Dragstedt has further pointed out that in dogs, because of the thick muscular intestine which enables them to resist a much greater distending pressure without dilatation, vascular damage to the mucosa occurs less often than in human beings, whose muscular walls are much thinner.

In intestinal obstruction, the bowel above the site of obstruction is commonly greatly distended and increased in length. The increased length of the distended, obstructed bowel produces segmentations, so that the lumen is occluded by sharp kinks at intervals of 10 to 12 inches. Vacuum nasal suction by use of the duodenal tube decompresses the upper intestine but fails to decompress the lower intestine, due to this segmentation. The Miller-Abbott tube, on the other hand, traverses the entire small intestine, removing this segmentation.

TECHNIC

The technical difficulties encountered in using the Miller-Abbott tube are often so intricate that considerable experience is necessary for its correct use. In order to secure maximum benefit from the use of the tube, the procedure must be carried out under the closest supervision of the surgeon and with the cooperation of the resident staff, nurses, and radiologist.

In all cases in this series the regular Miller-Abbott double-lumen tube was used. The length of the tube is 10 feet and the diameter is the same as that of a No. 16 French catheter (tubes of No. 14 and No. 18 French diameter are now available).

The balloon is tested, completely deflated, and wrapped closely around the end of the tube, which is then well lubricated with

K-Y jelly or mineral oil. The distal three or four inches of the tube are then threaded upon a small wooden applicator by passing the applicator through one of the drainage holes to the end of the tube. This gives the tube some rigidity, making it easier to pass. The tube is then inserted through the mouth or the nose, preferably the latter, as it is often desirable to have the patient take fluid or food by mouth. With the use of a wooden applicator to make the end of the tube rigid, we have never found it impossible to introduce a No. 16 French tube through the nose. When the end of the

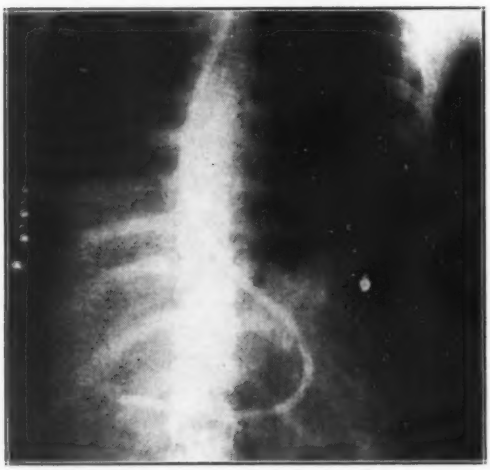

Fig. 1. Photograph showing Miller-Abbott tube in stomach with tip of tube at the pylorus. The balloon is deflated.

tube reaches the pharynx, the applicator is removed and the tube is passed down the esophagus to the stomach, as the patient swallows small amounts of water to assist in its passage. When the tube has reached the stomach, a small amount of excess tube is left in the stomach. The patient is then placed on his right side and encouraged to take small amounts of liquids at frequent intervals. After four to six hours, the patient is placed under the fluoroscope to check the position of the tube. Usually, the end of the tube is in the small intestine; if not, the tube must be pulled back and manipulated under direct vision until the end of the tube is at or past the pylorus.

The only certain method of directing the tube into the duodenum is to insert it under the guidance of the x-ray or the fluoroscope. If the patient is too ill to be transported to the x-ray department for fluoroscopic studies, the position of the tube is judged by the character of the material aspirated. When this material is definitely duodenal in character, it is concluded that the tip is at or in the pylorus. The patient is encouraged to remain on his right side and to take small sips of water, as mentioned above. Subsequent x-ray studies with a portable apparatus will usually reveal the tip of the tube to be in the small intestine. Often a large dose of atropine sulfate, gr. 1/75 by hypodermic to adults, in order to release the pyloric sphincter, will facilitate the passage of the tube into the small intestine.

The type of material aspirated cannot always be relied upon to tell the position of the tube, for often the material in the small intestine will overflow into the stomach, especially if the degree of distention is great or if an ulcer has been present for a long time.

Wise has described a so-called "syringe test" to determine the exact position of the tip of the tube. By means of a glass syringe, the plunger of which slips back and forth easily, 30 c.c. of air are injected into the balloon. Wise states that if the balloon is in the small intestine, the plunger of the syringe will be pushed backward by the peristaltic action of the intestine, but in our experience this test has proved misleading. Apparently, if the tip is just at the pylorus, the stomach musculature may contract down upon the balloon and cause the plunger to be pushed backward, thus misleading the attendant into thinking that the tip is in the small intestine, and as the inflated balloon is still in the stomach, the tip of the tube will not pass into the small intestine and valuable time is lost.

X-ray studies constitute the only sure method of definitely and quickly determining the position of the tube. Time is an extremely important factor in the treatment of paralytic ileus and intestinal ob-

struction, and the longer the time consumed in decompressing the intestine, the poorer the prognosis.

After the tip of the tube is known to have passed the pylorus, the balloon is inflated with 30 c.c. to 40 c.c. of air, and constant suction is applied to the aspirating side of the tube to allow continuous removal of the intestinal contents.

We should like to warn against using more than 50 c.c. of air in the balloon. In one of our earlier cases, 70 c.c. of air was used; the patient died, of other causes (cardiac and respiratory), with the tube in place, and at autopsy it was found that the balloon had stopped in the distal ileum, three feet above the cecal junction. At this point the intestine was tightly stretched over the distended balloon; vascular changes, venous stasis, thrombosis and early necrosis had begun to take place. Since then, we have generally used 40 c.c. of air (never more than 50 c.c.) to inflate the balloon.

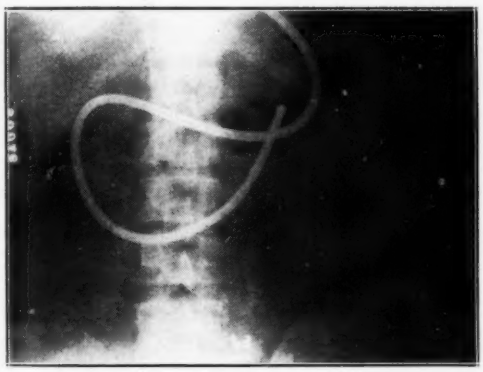

Fig. 2. Photograph showing Miller-Abbott tube in jejunum. The tip is at the ligament of Treitz. The balloon is inflated but cannot be seen in the photograph.

X-ray studies should be made frequently. We usually have films made every 12 hours, using a portable machine. By this method, kinks in the tube can be actually visualized and can be relieved by manipulating the tube, either inserting it farther or pulling it out a bit.

As the tube progresses through the intestine, the position of the patient should be changed frequently because of the variable positions of the distended loops of intestine.

Manual manipulation of a distended abdomen by gentle pressure in various areas sometimes increases the drainage from the tube, the amount of which varies a great deal and is influenced by several factors: (1) The degree of distention; (2) the speed with which the tube traverses the intestine; and (3) the amount of fluid taken by mouth. At times as much as 3,000 to 4,000 c.c. may be aspirated in 24 hours, and at other times as little as 50 to 75 c.c. may be aspirated in the same period of time. When only small amounts of fluid are obtained, the tube is probably blocked and should be irrigated and manipulated frequently.

When the tip of the tube has reached the small intestine, it is introduced three or four inches farther every two hours. The progress of the tube through the intestine depends primarily on the restoration of peristalsis of the intestine; as each loop is decompressed, the balloon will proceed forward into the next dilated loop. This process is repeated down the entire tract, and the speed at which the balloon

Fig. 3. Photograph showing Miller-Abbott tube in jejunum and terminal ileum. The balloon has been deflated and the patient at this stage was taking liquids and food by mouth.

passes forward varies with the amount and duration of the distention. If the ileus and obstruction are relieved by the intubation, the tip should continue steadily toward the terminal ileum. If, however, the progress of the tube is arrested at any point for more than 12 hours, the surgeon should immediately suspect that the point of arrest may be the site of obstruction. Such a diagnosis can be verified by the injection of a small amount of thin barium into the tube (20 to 30 c.c.); this amount of barium, we believe, cannot do any harm, even in the presence of complete obstruction. If, after 12 to 24 hours, the tip of the tube still remains in the same place and the barium shows no tendency to progress down the intestine, the obstruction is probably mechanical and operative intervention is indicated. It is in such cases that the Miller-Abbott tube can be of tremendous advantage. Not only does it help to locate the site of obstruction, but, by decompressing the intestine, it makes the patient a better operative risk.

As the tube continues to progress, it is more likely to become blocked because the contents of the intestine are of a thicker consistency. Therefore, the tube should be irrigated frequently with water, 30 to 40 c.c. Attendants should be warned not to use any larger quantities because of the small diameter of the intestine and the thinness of the friable intestinal wall.

The tube should remain in the intestine until the patient is completely relieved, which time is indefinite. The patient can take non-residue liquids after deflation of the balloon. The tube is withdrawn at the rate of one foot per hour.

Noer has recommended feeding the patient adequately by mouth as soon as the tip of the tube passes the ligament of Treitz. We believe, however, that feeding patients too early will throw a greater burden on an already diseased intestinal tract; therefore, we usually wait until the distention and the degree of toxemia have been relieved, believing this is a better indication as to when to begin feeding. In the meantime, we depend upon the parenteral use of glucose and other solutions for corrective chemistry.

CONTRAINDICATIONS

Use of the Miller-Abbott tube is not indicated in strangulated hernia, volvulus, intussusception, mesenteric thrombosis, or any obstruction in the large bowel. Despite the fact that the tube frequently traverses the entire intestinal tract, it cannot be depended upon to reach the large bowel quickly enough to be of value.

DISADVANTAGES OF OTHER METHODS

1. Duodenal tube drains only upper reaches of the intestine.

2. Drugs and enemas have proved unsatisfactory. Only prostigmin offers some results.

3. Spinal anesthesia is unsatisfactory.

4. Jejunostomy and ileostomy drain only one loop.

RESULTS

Up to the present time, 30 cases of various types have been treated at the Touro Infirmary by means of the Miller-Abbott tube. These can be classified under the following general types:

1. Postoperative paralytic ileus following operation for mechanical intestinal obstruction (intestinal intubation used as an adjunct to operation)—seven cases;

2. Postoperative ileus following other types of abdominal and genito-urinary operations—13 cases;

3. Intestinal obstruction treated by intubation without operation—five cases;

4. Paralytic ileus due to generalized peritonitis not following an operative procedure—two cases;

5. Paralytic ileus associated with ulcerative colitis—one case;

6. Diverticulitis of the duodenum—one case.

7. Other conditions—one case (also in two unusual complications in cases previously classified).

We have used the Miller-Abbott tube as a therapeutic measure in two conditions in which its use has not yet been reported from other sources. In one case of duodenitis, the tip of the Miller-Abbott tube

was placed in the proximal jejunum, and jejunal feeding was carried out through the tube, thereby partially defunctionalizing the duodenum and at the same time nourishing the patient through the gastrointestinal tract. In a severe case of gangrenous ulcerative colitis, the tip of the tube was placed in the terminal ileum, in order to defunctionalize the colon (similar to an ileostomy) and relieve the ileus. Furthermore, it was possible to inject drugs such as prontosil through the tube into the terminal ileum and colon so as to attack directly the infected intestinal mucosa. In a case of intestinal parasitic infestation (strongyloides) associated with a severe paralytic ileus following a perforated appendix, the anthelminthic drug (gentian violet solution) was injected through the Miller-Abbott tube after the ileus had been relieved. We believe that our experience in these last two cases opens up a new method of intraintestinal medication.

It is interesting to study the success and in some instances the failure of the Miller-Abbott tube in the various types of cases. In 27 of these 30 patients (90 per cent), the tube was used successfully, either to relieve the ileus or for other purposes:

1. Twenty-three patients in whom a severe ileus was completely or partially relieved (Groups 1, 2, 3, 4).

2. Three patients in whom an incomplete mechanical obstruction was relieved (Group 3); and one patient with duodenitis (Group 6) in whom successful jejunal feeding and partial defunctionalization of the duodenum was carried out for a time.

We believe that it is pertinent to review in detail three cases in which intestinal intubation with the Miller-Abbott tube failed:

Two of these were patients with complete mechanical obstruction in whom unsuccessful attempts were made to substitute intestinal intubation for operation and in whom operation was later necessary. We believe that in these instances of complete mechanical obstruction the Miller-Abbott tube should be used only as an adjunct to operation, rather than as a substitute for operation, except when the patient is moribund and operation would surely prove fatal. The third unsuccessful attempt occurred in a patient with paralytic ileus in whom the tip of the tube could not be forced past the pylorus, probably because of an old pyloric deformity due to a duodenal ulcer. Although intubation was unsuccessful in these patients, the tube furnished efficient gastric suction.

CONCLUSIONS

1. Intestinal intubation by means of the Miller-Abbott tube is an important advance in the treatment of paralytic ileus.

2. In the treatment of intestinal obstruction this tube is an important adjunct to operation. It should not be substituted for operation in the treatment of complete obstruction and should be used with caution in incomplete obstruction.

3. The technical difficulties involved in intestinal intubation are many and varied and deserve close attention.

4. The tube has been put to new uses in the treatment of duodenitis and colitis, and its use as a new method of introducing intraintestinal medication is suggested.

5. Thirty cases of various types are reviewed and the value of the Miller-Abbott tube is demonstrated clinically.

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DISCUSSION

Dr. J. D. Rives (New Orleans): It happens that several of the cases reported by Dr. Kaplan and Dr. Michel were my own and several others were handled under my observation so that I have had a relatively large personal experience with this subject. I would like to say in this connection that too much credit cannot be given to Dr. Michel for his persistence and ingenuity in passing the tube under difficult conditions.

It is well for us to keep in mind what the possibilities of the tube are and what its dangers are, in order that we may get the maximum of use with the minimum of risk. The Miller-Abbott tube is a very safe and valuable instrument when used with discretion and very dangerous when used without it. All that it can accomplish is the same thing that an enterostomy accomplishes with the advantage that the level of decompression is the lowest part of the bowel above obstruction and also that it avoids the fistula that so often follows enterostomy. All other dangers of enterostomy occur also in the use of the tube.

There is quite a great deal of difficulty in the passage of the tube. I believe that if its introduction cannot be observed by x-ray, its use results in a waste of time and is a definite danger. Then too if we cannot get, in effect, the services of a special nurse and special intern, in many instances failure will result. Lacking the services of an intelligent intern or resident who understands the procedure and is willing to give the time that is necessary for passage, it is dangerous to use it and again a waste of valuable time.

Dr. Kaplan has gone into the indications for the procedure and I can add nothing but can emphasize some points. First, paralytic ileus is probably a misnomer. The condition that is usually so designated is actually due largely to the fact that the bowel is so distended that its muscles are ineffective in their effort to contract. Peristalsis is usually resumed as soon as the bowel is decompressed. In most instances what we call paralytic ileus is really the result of a series of kinks commonly called hose kinks, which have the effect of a complete mechanical obstruction. If the tube can be successfully passed in such cases, it has great value and no danger. Recent postoperative obstructions, such as those that occur after pelvic operations, are due to fibrinous adhesions and there is no danger of strangulation of the involved bowel. Given time, these adhesions will free themselves. In such cases the tube works admirably. After successful intubation loose stools are usually passed in six or eight hours. If this does not occur, we should suspect obstruction due to some other cause, which, if permitted to go further, will probably result in rupture of the bowel. We must always insist that if the establishment of intestinal function is not produced in a moderate length of time after the tube is passed to the level of the obstruction, decompression must be due to some cause that it is dangerous to leave uncorrected. The greatest usefulness of the tube, I think, is in postoperative treatment. It is also valuable preoperatively in intestinal obstruction when the abdomen is greatly distended. There is great danger in any conservative measure used preoperatively that results in delay of an operation which is inevitable. The mortality of intestinal obstruction still depends more on the length of time between the occurrence of the obstruction and the time of its release than on all methods of treatment combined.

Dr. Mims Gage (New Orleans): This paper presents to the Society a method that has not permeated the medical profession as it should have, in regard to the treatment of paralytic ileus. I think this is probably the greatest advance in years. Forty years ago surgeons did everything that it was humanly possible to do to produce an ileus in operative cases and then after that to cure it. Both failed, then they tried all known drugs to simulate it. I took part in that. I did not take part in the first, but I took part with drugs. Then came the period when every effort was made on the part of the surgeon at time of operation or preoperatively, based on physiologic

principles, to prevent it. We have, to a great extent, prevented the postoperative ileus; however, we do have a number of cases where it is impossible or occurs in spite of efforts. We do, as already stated, have it in peritonitis at times.

We have used the tube rather extensively on our service. I stayed up all one night to see what took place in a patient with ileus. It is remarkable to me to see the passage of the tube unloose segments; the burst of gas bubbles in the suction bottle and after the passage of more tube see another burst of gas bubble go through the suction bottle. The important thing is that you must pass the tube rather slowly. What the tube does is to convolute the small bowel. If rapidly passed it comes through the rectum and has to pass the rectum. The intestine convolutes itself. The tube should be passed slowly, allowing time for the duct to convolute itself, regain its tone and stay like that.

This is a great contribution. I have enjoyed the paper and discussion and think the tube should be used in paralytic ileus and in many other different ways. In mechanical obstruction, operation should be done immediately or as soon as possible and then put the tube in.

Dr. John R. Schenken (New Orleans): I have not had much experience with the tube in action but I have had some after it was used in four cases. I just want to say this, not in criticism of the Miller-Abbott tube but as a suggestion or emphasis on the points already brought out in regard to the dangers in use of the tube: The first case in which it was used resulted in an esophagitis which we interpreted as being the result of the tube. Two cases were postoperative perforated peptic ulcers. In each of these cases, the tube was passed incorrectly and the tube curbed up on itself in the stomach. The tubes were used to relieve postoperative ileus. Both of the films of the abdomen were similar to those shown by Dr. Kaplan. The fourth case was a case of acute suppurative appendicitis; the distention was not relieved because of peritonitis being present and the peritonitis of course continued. An ulcerative esophagitis also resulted in this case. Therefore out of the four cases that we saw at postmortem, two had ulcerative esophagitis, and in two the Miller-Abbott tube had not passed the duodenum.

Dr. Marshall L. Michel (New Orleans): What Dr. Schenken has mentioned emphasizes again the fact that the correct use of this tube necessitates the close attention of the surgeon and the resident staff. Because of the metal tip on the end of the tube, insertion should be performed gently and slowly. It must not be overlooked that in most cases, for which the Miller-Abbott tube is used, we are dealing with a diseased, and therefore very friable, intestinal tract.

As far as the tube passing completely through the intestine, I have had this happen in one instance. This was a case of ulcerative colitis, with marked hyperperistalsis, in which case the Miller-Abbott tube was being used to defunctionalize the lower intestine. The tip of the tube passed out of the rectum for approximately six inches.

I would like to emphasize again the mistakes that can be made in the use of this method of intestinal intubation. It is by no means considered to be a substitute for operation in cases of complete mechanical obstruction. It is merely an adjunct to operation. If a diagnosis of obstruction is made, we still believe that operation should be performed immediately, if the patient's condition will permit. Many mistakes have already been made by trying to treat cases of complete obstruction with the tube alone.

In cases of paralytic ileus, the Miller-Abbott tube is of undisputed value and gives us an entirely new out-look. It has definite advantages over an enterostomy. The Miller-Abbott tube will decompress a series of distended loops of small bowel, whereas an enterostomy will decompress only a single loop. Furthermore, an operative procedure in a very sick patient usually can be avoided.

In closing, I would like again to warn against attempts to use the Miller-Abbott tube as a substitute for operation in the treatment of mechanical obstruction of the intestinal tract. The indications for operation in intestinal obstruction remain almost the same as before the advent of intestinal intubation, and the Miller-Abbott tube should be considered only as an adjunct to operation.

Dr. I. W. Kaplan (in closing): I am sure that the tube, if left down any length of time, must produce some irritation in the esophagus. In a number of cases, we have left it down as long as three weeks at a time, and have gotten no bad end results.

FALLACIES IN THE TREATMENT OF HEART DISEASE*

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FALLACIES IN CARDIAC TREATMENT

Cardiac treatment, like all other treatment of disease, has had its ups and downs, its days of polypharmacy and its days of therapeutic nihilism, its enthusiasts and its skeptics. Actually as in nearly everything else in human endeavor the best path is the conservative one, in the middle of the road. We should not decry the existence of the extremists, for without their enthusiasm

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we might make very little advance, but we must use great judgment and cool and critical appraisal of new methods of therapy and of new drugs before we adopt them ourselves routinely in these days of high pressure salesmanship of everything under the sun. A drug may be of value to some people, or in modest dosage, but it should not therefore be advertised as essential to all mankind in unlimited amounts and at fancy prices; it then may become the basis for a sort of racket like the vitamin tonics and the barbiturate sedatives.

There are two important bits of advice I would give at once that apply not only to any kind of heart trouble but to many medical and indeed even surgical diseases. They are as follows: First, when things are not going well in the face of much drug or other therapy, try a rest day or two or three without any medicines at all (except in the case of essential rations like insulin)—every now and then the result is little short of miraculous in arousing a spark of life, of appetite, or of morale which had been dampened by the very drugs which perhaps at first or on occasion may actually be life saving. Life saving measures may prove too heroic for every day life and may eventually result in severe depression or worse. The other bit of advice is a corollary. Do not use too many vigorous agents at one time. Each drug or measure may be very valuable and several together may prove vitally helpful, but every now and then in combination too rapidly administered they may do harm. I have seen patients in poor health, but not really emergency cases, brought from their homes to a hospital where they succumbed in a few days to the vigorous administration of drugs or measures which individually or in moderate dosage are highly effective and desirable but which in too concentrated combination or too high dosage upset the apple cart. Again it is well to follow the middle of the road, even in emergency treatment.

Now let me take up various cardiovascular symptoms and signs with reference particularly to therapeutic measures that are commonly carried out but which would be well avoided.

SYMPTOMS

Palpitation: There are all kinds of causes for palpitation, most of which are not cardiac in origin; that is, heart disease itself is not the cause of palpitation in the large majority of cases. Therefore, try first to find out the cause of the palpitation—it may be easily discovered and eliminated, for example, fatigue, nervous strain, overeating, coffee, tobacco, alcohol, thyrotoxicosis. Do not give drugs right away, even if you can not find the cause. In the absence of serious causes, and even in their presence, reassurance so far as this symptom is concerned is in order. For palpitation alone, strong measures like morphine and digitalis are to be avoided; the former may be habit forming and the latter may only increase the uncomfortable heart action, as it has done experimentally in my own case, unless auricular fibrillation or auricular flutter is present. What I have just said applies to simple tachycardia and bradycardia, extrasystoles and almost all cases of paroxysmal tachycardia. Reassurance, correction or eradication of an obvious remediable cause, and in some cases sedatives or quinidine are in order, not morphine, bed rest, or digitalis. Even auricular fibrillation or flutter may be so fleeting that it needs little treatment or occasion for apprehension. For frequent recurrence, rations of quinidine sulphate three or four times a day are usually far better than digitalis. Moreover a person should in no way be considered a cardiac invalid simply because he may have occasional paroxysms of tachycardia or even of auricular fibrillation. He may actually have fewer such attacks if he lives a normal life, avoiding nervous strain and excessive tobacco, but not avoiding moderate exercise (including golf). I would like to interpolate here an observation of importance about the heart rate in auricular fibrillation. It is sometimes difficult or impossible, by any known method of treatment (digitalis, quinidine, sedatives, absolute rest, or other measures) to control the ventricular rate in the pres-

ence of fibrillation. Reasons for this are several, and one of these should be suspected in dealing with such a case. They include: (1) Infection, often obscure as in the case of a mild or moderately active rheumatic infection; (2) pulmonary embolism or infarction; (3) infarction elsewhere as in heart or kidney; (4) thyrotoxicosis, often not very clear-cut, and perhaps (5) a highly emotional state. Be patient and treat so far as is possible these other factors and do not force digitalis with the possibility of poisoning.

Now as to shortness of breath: Do not give digitalis to a person simply because he is short of breath. A considerable number of patients have been referred to me for dyspnea who were getting digitalis but were no better for it. I have generally found in such cases states of chronic bronchitis or asthma with emphysema that were responsible, or nervousness with sighing respiration, or plain unfitness with obesity. The clue to most of these cases at once is the finding of a normal heart size. A good rule is that dyspnea is not due to heart failure or obstruction, as from mitral stenosis, if the heart size is normal. Also remember that acute asthma and indeed even pulmonary edema, unilateral or bilateral, may occur reflexly as from a chest tap without heart disease or failure. But, of course, bronchitis may complicate heart disease, and vice versa.

Next, precordial pain or heartache is in the majority of instances not due to heart disease. It needs careful appraisal as to cause but in most cases it is relatively unimportant, of nervous origin largely and to be treated in part at least by reassurance. Do not put people with heartache to bed or give them morphine unless you are very sure they need it. A nervous woman of 35 or 40 with precordial pain is very unlikely to be suffering from coronary thrombosis.

And even substernal oppression is often not angina pectoris but rather due to spasm of stomach or esophagus, to be treated by belladonna and diet rather than by rest and nitroglycerine. Also in such cases omit tobacco and nerve strain; large doses of reassurance are in order.

Moreover, syncope and faintness and vertigo are sometimes wrongly ascribed to the heart and treated as such. They are most likely to be due to vasomotor instability or in the case of vertigo to Ménière's syndrome, which I have seen in a few instances so severe that it has simulated somewhat, and been wrongly treated as, coronary thrombosis. A little care quickly distinguishes these two conditions, however.

A final word as to symptoms. When all these various symptoms mentioned above are gathered together in one person, one can almost at once diagnose that bothersome condition called neurocirculatory asthenia or the soldier's heart, which will rapidly come to the fore again in the present emergency. It is a difficult thing to treat and hence far better to avoid, in high degree at least, in our enlistment of the new army. As to its treatment I can not do better than to quote from that classic of Da Costa's written 70 years ago on the "Irritable Heart of Soldiers," advice that is quite appropriate at the present day.

"The treatment is never a short one; and the question arises, would it not be better for the government at once to discharge these heart cases? I think not. The very worst ones, those which after some months of treatment show no decided improvement, had better be discharged; so had those which happen to the very young, or in soldiers in whom some decided complicating ailment exists, which is likely to prevent the cardiac malady from entirely leaving; though even some of these can be kept as fit for guard duty, for service in hospitals, or in convalescent camps. But all other cases should be kept for treatment; and then either, if fit, sent back to their regiments, or passed into such organizations as the Veteran Reserve battalions during the late war, which were intended to do provost duty, to serve in fortified places, in fact, to do everything except active service in the field. And from these organizations again, should the war prove a protracted one, the cases that have thoroughly recovered may be sent to rejoin their former regiments. To act otherwise, to discharge the large number of cases of functional disorder of the heart, which must exist in every army during war, would, I believe, deplete it as much as an engagement, and have on many a soldier, seeing the ease with which a discharge can be obtained, a demoralizing effect. As for the time required before the disposition of a

case is made, this depends much on judgment in individual instances, and while, until I understood the malady, I retained a number of patients a long period in the hospital, later in the war a short time sufficed to make the proper disposition of them."

. . . . .

"In bringing this inquiry to an end, I may be permitted to point out what I believe to be its chief interest and value. To the medical officer it may be of service as investigating a form of cardiac disorder which every severe or protracted campaign is sure to develop. And from a military point of view, further, it enforces the lessons, how important it is not to send back soldiers just convalescent from fevers or other acute maladies, too soon to active work; it suggests that their equipments be such as will not unnecessarily constrict, and thus retard or prevent recovery; that recruits, especially very young ones, be as far as practicable exercised and trained in marches and accustomed to fatigue before they are called upon to undergo the wear and tear of actual warfare; and it exhibits some of the dangers incident to the rapid and incessant manoeuvring of troops. True, on a movement executed on the double-quick may depend the issue of a battle, a forced march may determine the fate of a nation; and the time can never come when purely physical considerations can forbid, either one or the other, or dictate how often they may be ordered. But every commander should be made aware that in so using his men he is rendering some unfit for further duty, impairing others, and thus be led to count the cost of the frequent use of such active movements as carefully as he would the holding of a particular part of a line or the assault on another."

SIGNS

Cyanosis is commonly due to pulmonary disease rather than heart disease or when it is the result of heart disease it comes most often from a congenital defect or from pulmonary congestion and local systemic stasis in mitral stenosis without myocardial failure and is not benefited by digitalis unless the heart rate is high in auricular fibrillation or unless the liver is enlarged and the systemic venous pressure raised, which is not the rule. Nor does oxygen help appreciably, for the fault is a mechanical one. Such cyanosis can be endured with little harm for years. It may cause undue apprehension.

About two years ago a little girl with argyria was referred to me as a case of congenital heart disease of the cyanotic type. I was able to return her to her distant home with a much improved prognosis, advised her to stop using silver solution nasal drops, and released her from exercise restrictions; in fact in this case, effort improved greatly her appearance, in contrast to the accentuation of the cyanosis in the cases of congenital morbus caeruleus.

Cardiac enlargement *per se* requires no treatment unless we wish to give small or moderate daily rations of digitalis in older persons with large hearts under constant strain with the idea of retarding the appearance of congestive failure.

Murmurs *per se* are not to be treated with digitalis or by rest, although factors back of them like luetic aortitis may need therapy. Once upon a time the discovery of a murmur meant for the doctor the need of starting digitalis. To be sure many hearts with murmurs fail and then need foxglove and rest, but many do not.

Fast pulses do not require digitalis, unless they result from auricular fibrillation, or flutter, and yet the drug is often given with little avail and even with toxic results in thyrotoxicosis, infections, infarction, and excessive nervousness, including neurocirculatory asthenia.

A slow pulse rate, even in the forties, requires no treatment *per se*, even if heart block is present; only if the block is unstable with pulse dropping low enough to threaten the patient with syncope (a very rare occurrence) is treatment needed. Otherwise a slow pulse is a decided asset.

The same may be said of low blood pressure. Almost invariably, even when the systolic pressure is constantly at or near 100, such hypotension is an asset. Of course, if the pressure has dropped abruptly from 200 to 100 we have another situation, but even so, such low pressure is not to be treated if it is uncomplicated by symptoms or other signs.

Hypertension is to be treated by sensible measures of rest, reduction of weight, and correction of obvious causative factors, but we must not deceive ourselves into thinking that we have yet discovered any therapeutic panacea. We must continue to grope and explore, hoping that there may arise

eventually something as good as insulin in diabetes.

Edema of the legs, even of both legs, is in the minority of cases due to heart failure. It is most commonly the result of local circulatory fault, with or without varicose veins, phlebitis, or marked obesity. And yet I have repeatedly found patients with normal sized hearts and bilateral leg edema receiving digitalis without benefit, even in my own hospital.

The same statement is true to a degree about rales at the lung bases. Most congestion of the lungs, best seen by x-rays, is not accompanied by rales, and most rales, even at the bases, are due to other than heart failure, although the factors responsible, namely, atelectasis, pulmonary infarction (commonly at both bases), or infection, frequently complicate heart disease or failure (as in acute coronary thrombosis or serious mitral stenosis).

Now, a word or two about digitalis itself. It is an invaluable drug but it is over used at the present day. Twenty years ago, when I began my private practice, I could still frequently make "ten-strikes" by putting patients on digitalis; now that rarely happens. I still sometimes make ten-strikes, however, by doing the reverse, namely, taking patients off digitalis. Not only are at least twice as many patients receiving digitalis as need it, but twice as much as necessary is given to many of those who do need it. This is partly the result of the uncritical following of the old idea of rapid and maximal digitalization, but also due to the stepup in the strength of many of the commercial preparations on the market some 30 to 50 per cent in the past few years to suit the new international standard, as outlined by the last U. S. Pharmacopeia. A few doctors have reduced the dosages of foxglove they have been prescribing but most have not, being more or less unaware of the rather insidious change that has taken place. Hence one of the most common experiences I have lately had is to encounter cases, even in the best hospitals, of moderately severe digitalis intoxication.

In brief then, give digitalis only to those persons with clear evidence of heart failure or in whom such failure threatens or is in doubt, and to cases of auricular fibrillation or flutter that do not clear quickly on their own or by the use of quinidine, and not to the great majority of cardiac patients. And when you give it, reduce the dosages you once gave (a few years ago or even now if you have not changed) to about two-thirds or three-quarters strength. Also look out for toxic digitalis effects from vigorous mercurial diuresis in edematous cases.

Before concluding, I have two more bits of advice which may help to correct other fallacies in cardiac treatment. First, do not give too much morphine to cardiac patients even with coronary thrombosis or acute pulmonary edema. Give enough to dull the pain or dyspnea but avoid overdosage, for morphine and its allies, pantopon and dilaudid, often cause depressing or nauseating effects which can be very disagreeable and indeed definitely harmful. Second, do not rush to try every new remedy suggested in the treatment of coronary disease with insufficiency. None of them is of great value, drugs or surgery, or x-radiation. The old standbys of rest and the nitrites are still the best, although in a few instances aminophyllin and nerve injections do seem to help. Radical measures like total thyroidectomy and implantation of new blood supply have not proved their worth, nor has radiation of the adrenal glands.

CONCLUSION

Remember that in heart disease, as well as elsewhere, and particularly in rheumatic and coronary heart disease, there is a natural tendency of the heart to recover, no matter what we do (provided we use common sense). Dr. Harry Levine and I have just completed a short paper for the New England Journal of Medicine entitled "What Natural Recovery and Sensible Measures Can Do for a Cardiac Patient." A good deal in many cases, I can assure you! Not that we doctors may now be dispensed with, but let us not be distracted from this fundamental truth by the high pressure salesmanship of the present day.

THE TREATMENT OF COMPOUND FRACTURES*

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There are few conditions in the field of surgery that require greater surgical judgment and experience than the treatment of compound fractures and their complications. Each case to a certain extent is a law unto itself. At this time, however, with the increasing interest being manifest in war wounds and in the value of chemotherapy and radiation, it is felt that a review of the principles in the treatment of compound fractures may be of interest.

It has been said that the whole era of modern surgery has developed through the compound fracture. In 1864 Joseph Lister of Glasgow, being struck by the remarkable effect of carbolic acid in lessening the sewage odor in the town of Carlyle, decided to try using this acid in treating his compound fractures. In 1867 he reported upon 11 cases of compound fracture, stating that amputation of the limb had been necessary in only one case and death had occurred in only one other. This was a decided improvement in the results being obtained at that time, but progress advanced very slowly and even in 1877 the mortality rate in compound fractures was estimated generally at 40 per cent. During the World War the Orr method of treating compound fractures improved greatly the results previously obtained. Today we hope that in careful hands results may still show improvement.

The importance of proper emergency treatment at the site of the accident is becoming increasingly recognized, while the necessity of maintaining length and position with fixed traction in transportation must be stressed for it still is rather generally ignored. In a consideration of any series of compound fractures, it is a striking fact that the great majority of accidents producing these injuries are preventable. Therefore, hand in hand with any consideration of compound fractures should go the education of the public with regard to safety of life and limb. Undoubtedly progress has been made in this direction in most of the industrial plants of the country, but with our American mechanization and the national careless disregard for personal safety, educational propaganda must be expanded.

*Read at the Fifth Annual Meeting of the New Orleans Graduate Medical Assembly, March 5, 1941.

GENERAL CONSIDERATIONS

Let us follow a patient from his arrival in the Emergency Room and his admission to the hospital, reviewing the routine treatment he should receive: He should arrive at the Emergency Room with the limb in traction and properly splinted. If shock is present, transfusion of whole blood, plasma or serum is administered from the "blood bank" as soon as possible after his blood has been taken and typed. The initial treatment consists of caring for the shock if present. While it is desirable to have a blood pressure of 80 or over before doing immediate surgery, this rule cannot always be followed and if a patient with a compound fracture uncomplicated by other injuries is suffering from shock, then it may be desirable to treat the wound while continuing to treat the shock at the operating table. Very large quantities of saline or dextrose are not desirable according to Blaylock when the capillaries are abnormally permeable and may actually result in harm. It must be remembered with the severe type of injury a sudden immediate mortality may be unavoidable.

Tetanus gas gangrene antitoxin is given as a prophylactic dose. In cases of sensitization to horse serum, this must be determined and the patient desensitized. External heat is applied and if the bleeding is severe, hemostats applied or a pressure bandage placed about the limb. The sterile dressing applied over the wound in the Emergency Room is not disturbed until the patient is treated in the operating room. First consideration is given the patient's general condition, but as soon as possible x-rays should be taken.

Every effort is made to have the essential steps become a routine procedure, for in

compound fractures wasted time is the best medium for aerobic and anaerobic organisms to develop. Undoubtedly our results would be far better if adequate care of the patient and wound toilet could be completed within six hours of the time of the accident. Therefore, the importance of emergency treatment all along the line in the handling of this type of case cannot be over-stressed. Before the patient is removed from the Emergency Room the splints should again be checked regarding the degree of immobilization present. The development of gas and tetanus infection must always be kept in mind. The use of prophylactic radiation of 100 R units on three successive days during which the use of sulfanilamide is omitted has produced in Jackson's series a striking decrease of gas and tetanus infection.

LOCAL CARE OF THE WOUND

After having given the patient emergency first aid treatment as outlined to combat the general condition of shock and taken the necessary x-rays, the patient is ready for admission to the hospital. Often he can be taken directly from the Emergency Room to the Operating Room where the previously applied sterile dressing is removed, but the traction and splintage continued. The surrounding skin is shaved and gently but thoroughly cleansed with soap, water and ether. At this time if the opening is button hole in size, it is enlarged and whenever there is a gaping lacerated wound, a sharp scalpel is used to cut away the rim of the wound edge. After this a careful debridement of the devitalized skin, fascia, muscle and completely detached bone fragments follow in the order named. This removal of devitalized tissue is of the greatest importance but must be gently, meticulously and rapidly done, saving as far as possible any partially attached bone fragments. No antiseptic is used in the wound for it is believed that any fluid strong enough to kill bacteria is powerful enough to harm the tissue cells. The wound must be adequately exposed and a thorough mechanical cleansing should be accomplished with normal saline. We prefer a long period of wound flushing with a soft rubber tube connected to an elevated enema can which permits a certain amount of velocity to the water, permitting the hematoma pockets and extravasated blood collections to be thoroughly opened and drained. Attention must be directed to having the saline flow from the depths of the wound outward and not burrow along the fascial sheaths and become a factor in spreading infection. Care must be taken to tie off any bleeding vessels but the policy is to use as few ligatures as possible and to control the small bleeders by allowing the hemostats to remain *in situ* several minutes before removing them. All surgery on the soft tissues must be done in the gentlest manner consistent with thorough debridement and if a definite plan is followed much valuable time can be saved the patient.

After the soft tissues have been adequately treated, the broken bones are placed in the best possible alignment and if the bones, by being notched can be locked in position, this method is recommended. With the oblique fracture, however, it may be necessary to use other methods of fixation. The application of Kirschner wires or Steinman pins above and below the fracture site which are then incorporated in the plaster may accomplish adequate fixation. Occasionally if the compound fracture can be treated early, we are justified in using Moore pins or plate fixation with the types of fractures that are difficult to hold by any other method. At times we have used a Carrell screw which is inserted obliquely through the line of fracture. Vitalium is always the metal of choice. The rigid immobilization that internal fixation assures, is an important factor in controlling the local infection. If any internal fixation is necessary, every effort is made to keep the fingers carefully out of the wound, using lion-tooth bone forceps to hold the fragments. The essential principle in the treatment of compound fractures is to obtain early rigid fixation for a number of weeks following surgery, preferring fixation obtained by external means but realizing that occasionally one can obtain this only by an

adequate degree of local fixation. In the final disposition of the wound we are faced with the question of closing the wound tightly, loosely, or leaving it open. This must be dependent upon the time interval that has elapsed between the accident and the operation, as well as the degree of wound laceration present.

Many favorable reports that are appearing in the literature, as well as my own personal experience concerning the local implantation of sulfanilamide or sulfathiazole in these wounds, make me believe that many of these cases can be treated safely by closure at a much later period of time than was formerly believed possible. Key has pointed out that while the local implantation of sulfanilamide will produce a concentration of about 800 mg. per cent in the contaminated area for a 36 hour period, the systemic administration should not safely be beyond a 10-15 per cent blood concentration. If, however, there is any doubt in the mind of the operator that such a technic is dangerous for the particular case, I feel sutures should be placed about the wound edges, the wound loosely packed with vaseline dressing, and at a later date secondary closure instituted. Occasionally because of the subcutaneous location of the bone, such as the crest of the tibia, it may be considered wise to approximate the skin directly over it and then make adequate openings laterally down to the site of the fracture; not however employing any rubber drains. These slits should be several inches long in order to permit adequate drainage. Sulfanilamide and its derivatives must be regarded as adjuvants in the treatment of compound fractures and I am employing 1 to 4 grams of the powder dusted into the wound in practically every case of compound fracture. I feel that while chemotherapy will inhibit infection in these wounds, adequate preliminary surgery is the prime requisite and should never be inadequately done. After the eight to ten hour period, I usually leave the wound open, placing secondary sutures and lightly packing with vaseline gauze followed by immobilization. The surgeon should employ the splint or fixation method which in his hands most adequately fulfills the requirements of immobilization. The fragments can be transfixed above and below the site of the fracture with pins or wires which are incorporated into the plaster casing, or if the reduction of the fracture can be satisfactorily maintained, a well-fitting plaster casing only may be applied. In some instances suspension in traction may be preferred but it must be added that the constant attention to detail that is absolutely necessary with this method is not personally popular. Whatever the method employed, the dressing should never be packed tightly into the wound and in my experience the Orr method of vaseline pack and plaster casing has been most satisfactorily used for the late cases, dressing the wound four to six weeks later as a rule through a window cut in the plaster. We cannot be "messing around" compound fractures from day to day. I do not use any type of drainage material in the wound other than the vaseline, and occasionally I have packed the wound with vaseline ointment alone. In the present war the Orr method is being used extensively, and recently the results of 10,000 cases have been reported with this method by the Spanish surgeon, Trueta. The average compound wound is treated by primary closure if operated upon within eight to ten hours using sulfanilamide in the wound. The blood concentration should be checked every forty-eight hours whenever sulfanilamide is used, keeping it above 5 mg. and not over 10 per cent per 100 c. c. A firm compression dressing over the part before the plaster is applied is very useful as it lessens subsequent edema and collection of fluid in the tissues.

On returning the patient to the ward, suspension of the part must be made. Sand bags are placed on either side of the limb to prevent it from rolling from side to side thereby lessening some of the postoperative muscle spasm.

Close observation of all compound fractures is absolutely necessary for there are a few complications which must be constantly borne in mind. In the first place,

union is ordinarily much slower than in the simple fracture so that every effort must be made to avoid distraction of the fragments at the time of plaster application. If subsequent x-rays show that distraction is present, it may be due to distraction at the time of plaster application or subsequent absorption of the bone ends. We are now watching for any distraction and correcting it by removing a small circular cuff of plaster at the level of the fracture and then rewrapping the limb without disturbing the underlying dressing. Our desire after treating the wound as above described is to avoid frequent dressings and to continue the efficient immobilization until there is evidence of bony union. While anatomic restoration is desirable, it is not always necessary. The ultimate aim should be to restore normal function to the part with the least delay possible.

In those cases in which there is evidence of gas or tetanus infection at the time of admission, I feel that liberal incisions into the soft parts with the excision of all dead muscle and leaving the wound wide open should be done as soon as possible. No form of internal metal fixation in these cases should be used at the site of the fracture.

If gas infection is present the clinical findings of pain, swelling, elevation of pulse rate, discoloration of the tissues and crepitus in the tissues, with the bacteriologic findings makes the diagnosis self-evident. Two ampules of polyvalent gas gangrene antitoxin intravenously and one ampule intramuscularly, both of which are repeated on the second and third days, are of definite benefit and I would rather give too much than too little. On the question of implanting sulfanilamide crystals in gas infected wounds I feel that the careful experimental work of Caldwell is important. He found that sulfanilamide crystals implanted in such wounds after debridement seldom control or prevent the development of gas gangrene. This same author used zinc-peroxide paste in the debrided wounds of experimental animals and states that in most instances its use prevented the development of gas gangrene.

In 1933 Kelly first advocated radiation of gas infection and collected 81 cases of compound fractures that had developed the *Clostridium-welchii*. Of this series, 78 per cent were alive and well and three dead, giving a mortality of 3.7 per cent. These are excellent results, and it is to be noted that in none of these cases was an amputation necessary. His many reports, as well as Jackson's, on the use of sulfanilamide and radiation together offer convincing proof that there is a definite contraindication to their simultaneous use. Bosworth, in 1938, reported seven patients treated without serum or amputation, or any known specific medication except x-ray therapy, all of whom recovered. X-ray therapy probably has no effect upon the progress of fulminating type of gas gangrene but appears to bring about some localization of the process when given early and if the patient has survived 48 hours or longer. While I have had no experience with the zinc-peroxide paste placed in the wound, in the presence of a gas infection I believe that wide local incision of the wound, heavy doses of antitoxin intravenously and intramuscularly, with heavy doses of radiation and possibly zinc-peroxide paste in the open wound, offer the best opportunity for a successful outcome.

Another anaerobe to be watched for is the tetanus bacillus. The usual symptoms are early trismus followed by spasticity of the neck and back muscles and later generalized muscular contractions. Mortality with this complication is high, from 75 to 90 per cent in acute cases and 40 to 60 per cent in the milder forms, and it must be kept in mind that tetanus appearing a few days after the injury offers the gravest prognosis. The wound should be widely opened and irrigated with hydrogen and peroxide or oxygen. The patient is kept quiet by sedation, placed in a dark room and serum therapy instituted. Twenty-five thousand units of tetanus antitoxin intraspinally and 50,000 units intravenously or intramuscularly may be used and each of these doses is repeated on each of the following two days. Radiation after the con-

dition has developed has been reported to be successful. In this connection it must be mentioned that whenever re-operation upon a previously infected wound becomes necessary, even though it has been six months since the original injury, it is considered wise to give a prophylactic dose of antitetanic serum of 1,500 units and a similar dose at the end of the week postoperative. I should like to report the following very interesting case which brought home very forcibly to me the dangers of ignoring this therapy.

CASE REPORT

E. K., male, aged 28, in July, 1940, received a gunshot wound in the left thigh, sustaining a fracture of the left femur. Local drainage followed, and he was admitted to the University Hospital in September, 1940. On admission there was marked over-riding of the shaft and many shot were noticed in the tissues. The wound presented a marked purulent discharge. A thorough cleaning of the wound was done approximately three months after the gunshot wound, the fragments aligned and temporarily immobilized with a vitalium plate. The wound was packed with vaseline and the Orr method of immobilization followed. On the ninth postoperative day the patient began to complain of tightness of the jaws and difficulty in swallowing. This muscle pain spread to the arms and upper abdomen and patient developed a stiff neck. The patient was found to be very sensitive for ordinary A. T. S. and gas antitoxin so that the bovine type had to be used. He was given 20,000 units of A. T. S. intramuscularly and the following two days received 50,000 intravenously, combined with heavy sedation and glucose and saline infusions. Then 50,000 units of A. T. S. were given every other day for the next three days and local application of oxygen was constantly injected into the tissues from the oxygen tank. Patient improved and eleven days after the onset of tetanus he appeared to be progressing satisfactorily, having received during the tetanus a total of 330,000 bovine A. T. S. intravenously, a number of transfusions and glucose and saline infusions. At present the x-ray shows a marked amount of callous about the site of the fracture which has been immobilized with the plate.

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THE NON-BLOODY VAGINAL DISCHARGES OF PREGNANCY*

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Before undertaking a discussion of abnormal vaginal discharges, it is wise to consider briefly the secretions or discharges which are normally found in the vaginal and vulvar regions. Sweat and sebaceous material are found on the skin and mucosa covering the labia majora because these structures contain sudoriferous and sebaceous glands. Deposits of sebaceous material are found between the mucosal folds of the labia and beneath the prepuce because the labia minora are rich in sebaceous glands. A scanty mucoid secretion is delivered into the vaginal vestibule from Bartholin's glands.

The vaginal mucosa is devoid of glands and therefore has no secretory function. The cervix, however, is rich in compound racemose glands, which normally secrete a clear, alkaline mucus. The vagina is normally lubricated with this mucus, and the vaginal secretion, in normal cases, is composed of mucus, together with desquamated epithelial débris and a few leukocytes. In the non-pregnant state this secretion is normally acid, with a pH of 4-4.5.

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In the pregnant state, because of the increased blood supply and glandular proliferation of the parts, there is an increased amount of vaginal secretion. During early pregnancy the secretion is acid, and in late pregnancy, because of the rich glycogen supply of the vaginal cells, it is highly acid, with a pH of 3-4.

In the normal pregnancy, therefore, it is usual to find an increase in the vaginal discharge, together with an increased acidity in the later months. These facts, however, should not obscure another fact, that all vaginal discharges during pregnancy are by no means normal. The physician is so accustomed to concentrating on the hemorrhagic discharges of this period that he is inclined to overlook the so-called "non-bloody" discharges, which are very frequent and which may be actually or potentially harmful as well as very annoying to the patient. Such discharges, furthermore, may be just as resistant to treatment as is the leukorrhea which, in ordinary gynecologic practice, frequently taxes the ingenuity of the clinician.

The chief causes of non-bloody vaginal discharges in pregnancy do not differ from those of similar discharges in the non-pregnant woman. They may be roughly grouped as follows:

1. Infections and infestations due to gonorrhea, trichomoniasis, mycoses, non-specific infections, chancroid, syphilis, lymphogranuloma and granuloma inguinale.

2. Non-infectious states, including congestion, hyper-secretion and lack of cleanliness.

3. Erosions of the cervix and endocervicitis.

GENERAL DATA

The matter of non-bloody vaginal discharges was thoroughly studied in the Louisiana State University obstetric clinics of the Charity Hospital of Louisiana at New Orleans over a four-month period, during which 433 patients were examined, 107 of whom were white and 326 of whom were colored. It was surprising to observe that of this number 317 patients, 44 white and 273 colored, a total of 73.2 per cent, exhibited some discharge.* It was equally striking to observe that only 107 patients, 20 white and 87 colored, a total of 32.6 per cent, considered the discharge severe enough or annoying enough to warrant mentioning it. Many of them, in fact, denied, when questioned, that they had any discharge and it was found only when pelvic examination was made.

ETIOLOGY OF VULVO-VAGINAL DISCHARGE IN PREGNANCY

	White		Colored		Total	
	Cases	%	Cases	%	Cases	%
Trichomonas	19	5.9	107	33.7	126	39.6
Mycosis	7	2.3	51	16	58	18.3
Gonorrhea	3	.9	15	4.7	18	5.6
Non-specific	15	4.7	97	30.9	112	35.6
Lymphogranuloma	0	0	3	.9	3	.9
Totals	44	13.8	273	86.2	317	100

As usually happens, the number of complaints was exactly in proportion to the social strata and hygienic habits of the patients. The figures are perhaps too small to be significant to obstetricians who are not familiar with the racial peculiarities of the colored patients at Charity Hospital, but to those who are, it would be expected that roughly one-half of the white patients should complain of even minor discharges, while roughly two-thirds of the colored patients should ignore all discharges, including, in many instances, discharges which were profuse and foul.

Whether the higher percentage of vaginal discharges in the colored obstetric patients can be attributed to their customary lack of hygiene and the ordinarily high rate of gonorrheal infection in this race, or to other causes, is a matter of speculation. It is a well-known fact, however, that the negro always exhibits a high percentage of infections of the genital tract due to improper sex hygiene, as well as a high percentage of non-gonorrheal infectious diseases.

TRICHOMONIASIS

Although the clinical signs of *Trichomonas vaginalis* vaginitis vary, certain symptoms are more or less pathognomonic

*Statistics are corrected (Chi square) by courtery of B. G. Efron, M. D.

of the infestation. The discharge may be profuse or scanty. In most cases it is creamy, grayish-yellow, thin, bubbly, and offensive. The vulvar and vaginal mucosae are often diffusely reddened, and in severe cases there is evidence of excoriation. The vagina may show a profusion of hemorrhagic spots, giving it the so-called "strawberry" appearance, and the cervix is often eroded.

Some patients have symptoms and others have none. As a rule, however, there is a complaint of dyspareunia, dysuria, and dull, bilateral pain in the lower abdomen. Burning and itching of the external genitalia are common.

The definite diagnosis is made by examination of the fresh discharge for the motile, flagellated organisms. This is best done by preparing a hanging drop slide with a drop of discharge, to which is added a drop of normal saline. Examination of this preparation under a low power lens establishes the diagnosis, and it is unfortunate that this simple, accurate diagnostic procedure is often neglected.

Trichomonas vaginalis vaginitis was present in 126 cases in this series (19 white and 107 colored), although symptoms were present in only 34 cases, 26.8 per cent of the total number (12 white and 22 colored). The diagnosis was confirmed by the hanging drop method in all cases. An associated gonorrheal infection was present in three instances, all in negro patients.

The many methods of treatment advocated for this condition are nothing short of bewildering. Most clinicians prefer to use some form of drying powder and to direct their treatment toward the eradication of the trichomonas and restoration of the normal bacterial flora. Effective results are often secured by changing the type of therapy. The condition is obstinate and recurrences are common with all forms of therapy, this being particularly true when the subject is pregnant. Examination of the male prostate and urethra should be routine whenever possible.

Although we have used several arsenical preparations in the treatment of *Trichomonas vaginalis* vaginitis in this group of pregnant women, we used only two methods, as follows:

1. Beta lactose (1 gm., in #12 capsules) was inserted into the vagina each night, and low pressure douches of lactic acid (U. S. P., oz. 2 per two quarts of water) were taken each morning. Treatment was continued for approximately three weeks, after which the douches were continued for four to six weeks three times a week. Thirty patients treated by this method were relieved of their symptoms, and in 22 the trichomonas was completely eradicated.

2. Sodium perborate was used by the method advocated by E. C. Smith.[1] The vagina, if the secretion was alkaline, was first treated with lactic acid douches, and then was dried by swabbing with cotton pledgets. Sodium perborate (1 gm., in #12 capsules) was instilled into the vagina each morning, and a douche containing 15 gm. of sodium perborate to one quart of lukewarm water was taken at bedtime. Treatment was continued for 10 days after the first hanging drop examination was negative. The method was followed by relief of symptoms in four cases, and appears to be as effective as any other method.

MONILIA

Because of the increased glycogen content of the vaginal mucosa and the increased acidity of the vaginal canal, mycoses in this region are considerably more common in pregnancy than in the nonpregnant state. Since the incidence of this infection has frequently been shown to be associated with the hygienic habits of the patient, it was not surprising to find that 51 of the 58 patients in whom this type of infection was present were colored women. Thirty-six of this group, 62.1 per cent (six white, 30 colored), presented symptoms.

Patients with yeast infestations frequently complain bitterly of pain, dyspareunia, itching and excoriation of the affected parts. The discharge is flaky, tenacious, greenish-yellow and membranous. There is no odor and it is frequently discovered only when the labia are bathed. On examination the vulva is seen to be reddened and edema-

tous, and the vaginal wall exhibits large, irregular scattered white patches, which are easily wiped off, and under which are seen areas of hyperemia.

Diagnosis is made by the finding of the fungus in fresh smears stained with Gram's stain or Lugol's solution. The mycelium is a long, branched, fiber-like structure and the conidium is about the size of a pus cell. For confirmatory evidence, as well as in cases in which the yeast cannot be demonstrated by smear, culture on Sabouraud's medium is necessary. Typical colonies can usually be recognized in 24 hours. Six of the 58 cases of mycoses in this series were diagnosed by culture.

The treatment in all cases in this series consisted of painting the vagina with 5 per cent aqueous gentian violet solution, after it had been carefully dried. For a week thereafter the patient, once daily, instilled 5 c. c. of the same solution into the vaginal canal with a syringe. At the end of the week the vagina was again thoroughly painted with gentian violet, and for the next two weeks the patient took daily douches of Lugol's solution (oz. 2, half strength) in two quarts of water.

Thirty patients in this group were relieved of their symptoms by a single course of treatment by this plan, and required no further therapy. A second course of treatment was necessary to relieve the remaining six patients.

GONORRHEA

The gonococcus has long been given credit for being the most common cause of vaginal discharges, due chiefly to the natural affinity of the organism for Skene's and Bartholin's glands, the urethra and the many racemose glands of the cervix. The low incidence of gonorrhea in this series is therefore very surprising, particularly in view of the large number of colored pregnancies which it includes. The discharge was due to gonorrhea in only 18 of the 317 cases (three white, 15 colored).

Fifteen of the 18 cases were diagnosed by culture. To rule out gonorrhea cultural methods are necessary, as other gram-negative organisms of similar morphology are found in vaginal smears. Furthermore, we have found on the L. S. U. services that the positive diagnosis of gonorrhea can be made four times more frequently by culture than by smear. The organism is cultured on testicular hydrocele agar, using the method advocated by Pitts.[2]

Therapy in all cases consisted of hospitalizing the patient and administering sulfanilamide, in doses of 80 gr. daily for two days, 60 gr. daily for four days, and 40 gr. daily for six to eight days. Sulfathiazole is now used with less toxic effects and even quicker results. Dosage is the same. Careful checks for signs of toxicity were made daily. Sixteen of the 18 patients treated by this method had negative smears at the end of a single course of treatment, and in the other two cases good results were secured, after a further course of treatment with sulfapyridine.

Temporizing measures cannot be employed in gonorrhea. Even when it is discovered late in pregnancy or at the actual onset of labor, treatment is immediately instituted in the manner described. In no case in this series did the fetus seem to be adversely affected by the type of therapy employed. In such cases all forms of examination are dispensed with during labor, and every effort is made to deliver the patient with a minimum of trauma. Treatment is continued during the puerperium.

NON-SPECIFIC DISCHARGES

Sixty per cent of the patients admitted to our obstetric clinics have some form of cervical discharge, the cause of which is frequently due to some one of the conditions already mentioned. In a very large number, however, there is no related specific organism present. Such conditions must not be ignored. Erosions which before pregnancy are small, during pregnancy may reach the size of fungating growths. In one such case the condition presented the clinical picture of carcinoma, although biopsies were negative and considerable regression ensued after delivery. In such cases it is generally agreed that biopsy must be taken immediately, even though carci-

noma associated with pregnancy is very unusual.

Cervicitis in the early months of pregnancy is treated by 25 per cent silver nitrate applications to the eroded areas and the instillation of sulfanilamide powder to the lesion. We have had no ill effects from treating these patients and have been surprised at the results obtained in preventing larger erosions from developing. Naturally, cervicitis associated with the specfiic causes of leukorrhea are treated by eradicating the causal agent.

In 112 cases in this series some form of cervicitis was found to be the chief cause of the discharge, although, as has been mentioned, nearly all of the other cases presented some degree of cervicitis in association with other causes of the vaginal discharge. Treatment was undertaken during pregnancy in all cases with gratifying results and without any harmful complications.

COMMENT

It will be observed, from what has been said, that the treatment of specific vaginal discharges during pregnancy does not differ from the treatment of similar conditions in non-pregnant subjects. All manipulations are, naturally, undertaken with the greatest care and gentleness. Low pressure douches and vaginal instillations even to the eighth month have been used without any untoward ill effects. It is more rational to have a clean, healthy vaginal canal when labor begins than to ignore the presence of discharges which keep the canal in an unhealthy state. This alone is sufficient but the relief afforded the patient makes it even more imperative that discharges even in late pregnancy be treated and not ignored.

It is interesting to observe that in the series reported herewith the great majority of patients were seen in the obstetric clinic prior to the sixth month of pregnancy. This is a significant commentary upon the increasing tendency of both negro and white patients to report early to the obstetric clinic which means, in turn, that prenatal care can be instituted while it is still most effective.

In respect to the subject under discussion, the matter of vaginal discharges in pregnancy, the fact that the majority of patients were seen before the sixth month made possible the treatment of specific discharges with entire safety and with corresponding good results. This is an important consideration. The habit of ascribing discharges which occur during pregnancy to the pregnancy itself is not justified. They should not be considered as a mere accompaniment of pregnancy until all other causes have been investigated and eliminated. Treatment is often, necessarily, palliative rather than curative, but at that, it plays its special part in eliminating the puerperal morbidity and even the proportion of puerperal sepsis which are now believed to have their origins in an unhealthy vaginal canal.

It must not be forgotten, too, that the fetus may also suffer from the presence of abnormal vaginal discharges. Infants delivered through genital tracts infected with yeast vaginitis frequently suffer from thrush and it is scarcely necessary to mention the even more serious ophthalmia which is the sequel of delivery through a birth canal infected with gonorrhea.

SUMMARY

1. A series of 317 cases with non-bloody vaginal discharge in pregnancy is presented.

2. Etiology, incidence, therapy and results are discussed.

3. The necessity of investigating all vaginal discharges in pregnancy is stressed with emphasis on therapy even in late pregnancy.

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STUDIES WITH ANTIGENS

X. THE STATISTICAL METHODS FOR THE ANALYSIS OF COMPARATIVE SKIN REACTIONS

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AND
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NEW ORLEANS

A method of analyzing comparative skin reactions by means of the Chi-square statistic was recently reported by us.[1] Since then we have used a more precise method of estimating probability associated with a given value of Chi-square, and have employed an alternate method for analyzing comparative skin reactions.

Berkson[2] and Hotelling[3] expressed the opinion that equal size of reactions is an irrelevant factor in testing the hypothesis, that no significant difference results from comparative tests made with identical extracts. Because the number of equal sized reactions in the "expected" class is the same as in the observed class, it follows that there is only one degree of freedom instead of two in the table of computation. Hence, in using the table of Chi-square to compute the probability associated with a given value, "n" is designated as "1". This is more easily seen when the value of Chi-square is computed by the direct method rather than by the Brandt-Snedecor formula which was in our recent paper.[1]

Applying the direct method to the data in Table 1 of our recent report,[1] the computation is as follows:

	Equal Sized Reactions	Radial Reactions Larger	Ulnar Reactions Larger	Total
Observed	326	89	86	501
Expected	326	87.5	87.5	501

$$\text{Chi-square} = 0 + \frac{(1.5)^2}{87.5} + \frac{(1.5)^2}{87.5} = 0.0514$$

$$\frac{(\text{Observed-Expected})^2}{(\quad\text{Expected}\quad)}$$

n = 1
P = .90—.80
(.82)

The direct computation of the value of Chi-square for the data in Table 4 of this same report is as follows:

	Equal Sized Reactions	Sol. Double Conc. Reactions Larger	Sol. Double Conc. Reactions Smaller	Total
Observed	192	180	31	403
Expected	192	105.5	105.5	403

$$\text{Chi-square} = 0 + \frac{(74.5)^2}{105.5} + \frac{(74.5)^2}{105.5} = 105.218$$

n = 1
P = less than .01

The conclusions reached in that report[1] remain the same even when the more precise estimation of probability is used.

Application of the direct method to the data presented in other studies in which skin reactions were analyzed by the former method shows that the more precise estimation of probability does not alter the results or the conclusions published in these papers.[4,5] Practically, the more precise method is of importance when the question of the significance of a given value is doubtful.

Berkson and Hotelling also stated that an alternate method for analyzing comparative skin reactions is applicable when there are only two independent classes of reactions, in which case the difference between the two independent observations can be tested according to the binomial distribution. The estimation of probability for the data in Table 1 of our recent report[1] can be computed as follows:

Expected probability (p)	= .5000	
Standard deviation	= .0378	
Observed probability	89/175	= .5086
Deviation from expectation	.5086 — .5000	= .0086
Deviation from expectation / Standard deviation	.0086/.0378	= .2275

P = .82

The estimation of probability for the data in Table 4 of that report[1] is as follows:

Expected probability (p)	= .5000	
Standard deviation	= .0344	
Observed probability	180/211	= .8531

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Deviation from expectation	.8531 — .5000 = .3531
Deviation from expectation	.3531 = 10.2645
Standard deviation	.0344

P = less than .01

This simpler statistic has the advantage of being a more direct method of estimating probability than the Chi-square statistic. For analyzing comparative skin reactions, both of the methods employed yield similar results and conclusions.

SUMMARY

1. A more precise method of estimating probability associated with a given value of Chi-square is presented for the analysis of comparative skin reactions.

2. Application of this more precise method of estimating probability does not affect the published results and conclusions of our studies in which the first method of estimation was used.

3. When there are only two independent classes of reactions, the probability can be calculated directly from the binomial distribution. The results obtained with this method are similar to those obtained with the Chi-square statistic.

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BAGASSCOSIS: A FUNGUS DISEASE OF THE LUNG*

A CASE REPORT

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The following case is reported as an exceptional instance of pulmonary involvement apparently due to the inhalation of bagasse dust. Several similar cases have occurred in the hospital, but on the whole comparatively little attention has been paid to the condition.

E. S., an unmarried 20 year old negro male laborer was admitted to the medical wards of Charity Hospital on June 11, 1940. He complained of fever and dyspnea and dated the onset of his illness to twelve days before admission when it began with malaise and weakness. Three days after the onset he had a slight chill, felt feverish and went to bed. Afternoon fever and night sweats occurred daily from that time. On the one occasion the temperature had been taken it was 103.2° F. Coughing began with onset of illness. The cough was productive. Clear white material was brought up; however blood tinged sputum had been noticed on several occasions. There was some retrosternal pain on coughing. Dyspnea occurred on slight exertion and following coughing. The only medication used was "666".

Past history revealed measles and mumps in childhood, gonorrhea in 1937, influenza in 1936, an undiagnosed fever in 1936 and frequent sore throat. Family history was irrelevant. The social history showed he had previously been a farm laborer but since May, 1939 he worked at the Celotex plant in Marrero. After February, 1940, his work was unloading bagasse. This was very dusty work and although a respirator mask was worn some dust seeped in and was inhaled.

Very few pertinent findings were noticed on physical examination. The blood pressure was 120/90, pulse 100, respiration 24 and temperature 99.4° F. He was a hyposthenic, well developed, well nourished male of apparently 24 years, ambulatory and did not appear acutely ill. The pharynx was slightly reddened and the tonsils hypertrophied. There was a slight lag of the left side of the chest on inspiration. Percussion was resonant over the lung area. Tactile fremitus showed no deviation from normal. Vocal resonance was somewhat coarsened over the lower posterior chest. Breath sounds at both lung bases posteriorly were coarsened with the findings more marked at the right base. On coughing a few scattered coarse rales were heard at the right lung base posteriorly. Dyspnea appeared on coughing. On rectal examination the prostate gland was slightly tender in the left upper portion.

Impression on admission was either tuberculosis or a dust disease of the lungs, and tonsillitis.

On admission the red blood cell count was 4,600,000, total white cell count 10,500 with a differential count of 76 per cent neutrophils, 10 per

*Read before the Orleans Parish Medical Society, October 14, 1940.

cent lymphocytes, 6 per cent monocytes and 8 per cent myelocytes. No malarial parasites were seen in repeated examinations of blood smears. The urine contained 1 to 4 pus cells per high power field on microscopic examination. Examination of prostatic secretion on two occasions showed 1 to 3 pus cells per high power microscopic field but no bacteria on staining. Examination of the sputum was negative for acid-fast organisms. Blood agglutination was negative for typhoid, paratyphoid, typhus, tularemia and undulant fever. Blood culture taken on June 20 was negative.

An x-ray picture of the chest was made immediately on admission and interpreted by the roentgenologist to show bilateral bronchopneumonia. Sputum typing was negative for all types pneumococci. Sulfapyridine was started on June 12. The next day the sulfapyridine blood level was 5.2 mg. On June 15, the sulfapyridine was discontinued. A total dosage of 10 grams had been given with no effect on the fever and there were no pathologic physical findings demonstrable in the chest.

From time of admission the temperature was normal in the mornings and around 100° F. every evening with night sweats occurring every night. The day after discontinuing sulfapyridine the maximum temperature rose to 103.2° F. On June 17, it was 101.8° F. and on the next day 102.8° F. On this date inhalations, of carbon dioxide and oxygen were started in an attempt to expand the lungs fully. One 10 and three 5 minute periods of inhalation were given by mask during a period of three days. On June 19 the maximum temperature was 102.4° F., and on the next day 101° F. The maximum daily temperature continued to decrease about 0.2° F. daily until on June 24 he was afebrile and remained so until discharge. The night sweats persisted as long as the temperature was elevated. After discontinuing the sulfapyridine the only medication given was sedative cough medicine for the cough.

X-ray of the chest made on June 15 was reported to show miliary mottling throughout both lungs and the impression being miliary tuberculosis.

Intradermal tuberculin tests, with old tuberculin 1:10,000 on June 17, with 1:1,000 on June 24 and again with 1:10,000 on July 1 were all negative.

After a conference with the roentgenologist on June 18, it was suggested in view of his experience with several other cases from the same occupation, attempt be made to find a fungus in the sputum. If such could be found she believed this would prove to be not a case of miliary tuberculosis as the x-ray plates apparently showed, but a pneumonitis due to some fungus from the dust of bagasse and the lungs would be clear in a few months.

Examination of concentrate from a 24 hour total specimen of sputum collected on June 18 was negative for acid-fast bacilli but a culture grew a fungus. On June 24 a 48 hour sputum was collected and culture from the concentrate again grew the fungus.

X-ray examination of the chest on June 25 showed an increase in mottling throughout both lungs and the impression of the roentgenologist was "bagasscosis vs. miliary tuberculosis."

As the patient had no further fever and the cough disappeared he was discharged on July 10. The hospital stay had lasted 29 days and he had been afebrile during the last 15 days. He was instructed to return after six weeks for a period of observation.

He returned on August 5, with a history of remaining symptom-free during the interval. No positive points were found on physical examination. X-ray examination of the chest was reported to show a complete clearing of the "bronchopneumonic infiltration throughout both lungs." An electrocardiogram showed no evidence of myocardial disease. During the six days he was kept for observation he remained afebrile.

SUMMARY

An instance of involvement of the lung due to inhalation of bagasse dust, which should be called bagasscosis, is recorded. This is an extremely rare condition peculiar to regions where sugar cane is grown.

DISCUSSION

Dr. S. Chaillé Jamison (New Orleans): I can add very little to what Dr. Hopkins has said. The main thing of interest, I think, to all of us is that this case, shall we say, presents local color as it is probably due to the inhalation of bagasse dust. The diagnostic difficulty is the question of miliary tuberculosis, of course. If you examine these patients closely I think that will impress you. It is very similar to miliary tuberculosis. In the absence of physical findings, fever and so forth, the young negro mentioned certainly suggested that he might have miliary tuberculosis. These conditions of dust inhalation are, of course, more and more important. We see them at all times, referred largely by industrial plants.

You remember, of course, that there are diseases due to organic and inorganic dust. Those due to inorganic dust, such as occur in tobacco factories, cotton goods factories and so forth are, to all intents and purposes, apparently harmless. This should go, I think, in the class of organic dust. In nearly all such cases attempts have been made to isolate some organism, such as fungus, and put the blame on the fungus. What reaction these people have after inhalation of organic dust is usually because of an allergy to the particular material that they inhale and passes off in a very short time when they are free from contact. The organic dusts are, of course, much more serious. They range all the way from the commonest one,

the inhalation of coal dust and soot, which is harmless, to the inhalation of silica which, as you know, is usually eventually fatal.

This boy impressed us, when first seen, as being quite sick and we were very much pleased when we were able, I think to everyone's satisfaction, to prove that he was suffering from the inhalation of dust and not miliary tuberculosis. There is nothing new about this, of course. Four or five cases had been worked up in the hospital before this case and I think Dr. Louis Monte reported several either here or before some other society. I think also that Dr. Fasting has done a very considerable amount of work on the bacteriology of this subject. He even went so far as to try to find out something, perhaps he succeeded, about the chemical composition of this partciular dust.

Dr. George F. C. Fasting (New Orleans): A few years ago we had three or four cases of similar nature in Charity Hospital. There were patients, on the service of Dr. Monte and his associates. X-ray and clinical findings were similar to this case. Quantities of sputum were sent to the laboratory and we did not find acid-fast bacilli. However, there was something that aroused interest, namely, masses that took acid-fast stain. In connection with the occupation of working with bagasse it was not difficult to put two and two together. I communicated with Dr. Charles Coates of L. S. U. regarding chemical aspects of bagasse. He confirmed some suspicions we had. It might be of interest to you to review this phase. Some of you know that there may be trouble in clarification and sugar crystalization by virtue of gummy substances and rosin which sugar cane produces. Rosin will harden and make its appearance in the bagasse dust. Such rosin is very much of the chemical nature of that part of tubercular bacillus taking acid stain. From sugar there is also obtained horny spicules that are not readily digested by the digestive juices which we possess. Sugar cane, in common with other grasses, has an interesting property of picking up colloidal silica and in soluble form it is exuded and deposited between the stalk and leaves as silica granules. We have then a compound not unlike quartz that workers are subjected to and inhale.

I am not sure that Dr. Monte has published the cases but at that time we thought it definitely an industrial hazard and thought it best to keep quiet about it.

EXTRAMEDULLARY ANEURYSM OF THE SPINAL CORD*

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NEW ORLEANS

CASE REPORT

This colored woman, aged 30, was brought to Charity Hospital in New Orleans by ambulance, July 8, 1940, complaining of pain in the back and paralysis of both legs. For the preceding two years she had experienced numerous attacks of high back pain. One month prior to admission, a few hours after lifting a heavy mattress, the patient felt a burning sensation from the epigastrium around the right side of the chest to the spine. Concomitantly, she experienced other pains shooting down the midline of the abdomen to the bladder and down the back to the sacrum. Associated with these pains was urinary frequency. A sedative enabled her to sleep. The next morning she noted weakness of the legs as well as a burning sensation when her dress rubbed against her left thigh.

She was treated by radiant heat to the spine for the next four weeks. During this time the lower extremities became progressively weaker. Three days before admission the legs became completely paralyzed and all sensation below the level of the xiphoid process was lost. Urinary and fecal incontinence appeared at that time.

Examination on the day of admission revealed complete anesthesia and motor paralysis below the level supplied by the sixth thoracic segment of the spinal cord. Roentgen films disclosed a spina bifida occulta of the twelfth dorsal vertebra. Spinal puncture yielded clear, yellow cerebrospinal fluid under a pressure of 200 mm. of water. The Queckenstedt test indicated a complete block. One-half cubic centimeter of lipiodol was injected into the subarachnoid space. Under the fluoroscope, when the head was lowered, the lipiodol was seen to gravitate to and stop at the level of the sixth dorsal vertebra. Cerebrospinal fluid examination indicated negative Kline and Kolmer tests, four plus globulin, and a cell count of 60. The blood Kline was negative.

A diagnosis of spinal cord tumor was made and a laminectomy performed on the following morning. The dural sac was opened. The cord was yellowish, somewhat swollen and rotated. On the right lateral aspect of the cord there was a plexus of vessels which emerged from a spherical black mass, partially buried within the substance of the cord. This mass measured one centimeter in diameter. The sac was opened, the clot was removed and the vessels entering the sac were coagulated.

Within five days after operation the patient began to note a return of sensation and within nine days a return of motor function. Two weeks postoperatively the indwelling catheter was discontinued. The patient has been receiving physiotherapy

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*Presented before the Orleans Parish Medical Society, November 11, 1940.

in the form of massage and passive as well as active exercises. Her improvement has been progressive. Now, four months after operation, it is noted that she can walk with assistance. Her bladder and bowel function normally and the sensory loss has practically disappeared.

CONCLUDING REMARKS

Aneurysm of the spinal cord is so rare as to be almost unknown. It is not even practical to consider this lesion in the differential diagnosis of causes of paraplegia. However, this patient does serve to demonstrate the danger of treating progressive paraplegia expectantly. Paralysis, in this case, would have been permanent had operation been delayed another twenty-four hours. Progressive weakness of the legs should be looked upon as a surgical problem until Queckenstedt's procedure demonstrates a patent subarachnoid space.

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CIVILIAN PRACTICE OF MEDICAL DEPARTMENT OFFICERS

Under the above caption the Adjutant General of the United States Army, Major General E. S. Adams, has sent out a notice throughout the United States that officers in the Medical Reserve Corps and Dental Reserve Corps are not to be permitted to carry on civilian practice when they are on active duty. The reasons for this order are obvious. In the first place the medical man assigned to a certain unit cannot give satisfactory service if he is harassed and worried by the exigencies of private practice. Furthermore, he, in theory at least, should have a sufficiently active service to require his full time. The other important reason likewise is plain. It would be decidedly unfair to the civilian doctor if the physician in the Medical Reserve Corps established a new office in the community in which he was located. This would make for unfair competition in many ways.

The Adjutant General has taken, we believe, a very fair point of view about this matter which has already been the cause of considerable discussion in medical circles and as has happened, when an army doctor, not in his home area, has engaged in private practice, it has caused much dissatisfaction amongst the civilian doctors.

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THE HEALTH OF RURAL AND URBAN COMMUNITIES

The statement is frequently made that the people living in the country and small towns are longer lived than are city residents. This has been attributed to the greater speed of living in the city as contrasted with the country. As result of this rapid rate of living, as it is spoken of, city dwellers are assumed to develop arteriosclerosis and the degenerative changes of old age at a period in life much earlier than does the dweller in the country. Likewise it has been said frequently that contrariwise the general health of the city dweller is better than the country dweller because the former has easier access to expert medical advice and service than does the latter.

A recent communication by Short* is of interest in conjunction with the problem of whether or not differences in environment and conditions of occupation are important in occasioning sickness and bringing about changes in life expectancy. This author has compared the case history records of the Life Extension Institute of 1,310 rural and 10,665 urban individuals. He finds that there is remarkable similarity in physical standards between the two groups. The physical and laboratory findings showed practically no significant differences of

*Short, J. J.: Health differences between rural and urban populations, Proc. Life Extension Examiners, 3:6, 1941.

any kind between the city dweller and his country cousin. It was discovered that the man who lives in the city used tobacco and alcohol to a much greater extent than does the man in the country. The author implies that greater nervous tension and irritability of the city dweller is compensated in part by smoking and drinking.

It is of interest that eye findings of the two groups were analogous. On the other hand, infected tonsils were more common in the country group than in the city. However, most remedial defects, such as hemorrhoids, hernia and so on, were statistically no more frequent in one group than in the other. It is of some moment that the average blood pressure in the two groups was practically identically the same.

In spite of the fact that most city occupations are more trying than those of the country, that the city dweller usually does not obtain a sufficient amount of exercise and that sleeping conditions are not as favorable in the city as in the country, city life is apparently not detrimental to the individual. Short concludes, incidentally, that medical care among the rural population is sufficiently adequate to prevent conditions of neglect.

NATIONAL DAYLIGHT SAVING

During the last World War a National Daylight Saving law was enacted by Congress which lasted until after the completion of this war. Although daylight saving had been tried in a good many of the cities and towns of the East prior to this time, the population who lived in a daylight saving regimen represented a relatively small group of people in the United States. However, the advantages of the daylight saving were so obvious that many states to this day still maintain this particular measure and at the present time upwards of one-third of the population of the United States has daylight saving in their communities. At this particular time when we are living under a national emergency, daylight saving is especially to be encouraged. Some of the advantages are a reduction in industrial accidents, a minimization of the strain of working under artificial light and giving to the workman a certain amount of rest and recreation time during daylight hours. This latter consideration is of particular importance to the health of the nation. Recreation and play in the open air and sunlight are certainly beneficial to most people. Daylight saving, permitting of an extra hour of daylight, will give to the worker, whether a brain worker or a manual laborer, the opportunity of relaxing and possibly playing after his full day's work, while the sun is still shining. It will give the man with a home an opportunity of attending to his kitchen or flower garden; it will reduce his consumption of gas and electricity.

Practically all of the principal cities in the country have daylight saving. Canada and Mexico are already on daylight saving. If the remainder of the country goes on daylight saving it will relieve a tremendous amount of confusion as to time and as to such mundane things as railroad schedules. This makes for inefficiency which, at this particular time, cannot be condoned. It is earnestly hoped that for the sake of the health of the country, the greater efficiency of the workers and for the purpose of avoiding confusion in time that the McLean Bill will be passed by Congress.

HOSPITAL STAFF TRANSACTIONS AND CLINICAL MEETINGS

CHARITY HOSPITAL

New Orleans

At a meeting of the Charity Hospital Staff on February 18, the following case reports were presented, the first by Drs. R. H. Bayley and J. R. Schenken, and the second by Dr. F. A. Eigenbrod.

CASE No. 1

The patient, a 52 year old white male, was admitted to the hospital December 28, 1940, complaining of moderately severe retrosternal pain. He had been in apparently good health up until the morning of the day of admission, at which time he was stricken with a sudden onset of severe retrosternal pain and a feeling of generalized weakness. He was given an injection of morphine by his physician before being sent to the hospital. He was known to have hypertension for at least three years prior to the onset of the present illness. The systolic blood

pressure was known to have been as high as 200 mm. of mercury on several occasions. There was a history of jaundice of two months' duration in 1938, supposedly due to chronic gallbladder disease. No operation was performed.

Physical examination showed a patient in moderate state of shock; temperature normal; blood pressure, right arm, 90/40; left arm, 140/90. Cardiac apex impulse was well localized and forceful, at a point just outside the left midclavicular line. Rhythm was regular. There was a soft systolic blow at the apex, and a to-and-fro murmur over the aortic area. There were no additional contributory findings.

Course in the Hospital: Patient ran a low grade fever (100°) throughout the hospitalization period. Repeated blood counts showed no leukocytosis. Repeated urinalyses were normal. Blood Wassermann for syphilis was negative. Initial electrocardiogram taken on admission showed marked left ventricular preponderance and high grade ischemia of the muscle tissue supplied by the right coronary artery. A second electrocardiogram taken five days later showed a slight decrease in the degree of local ischemia. The patient died suddenly on the twelfth day of hospitalization.

Antemortem Diagnosis: It was felt that the only etiologic factor that might explain the sudden development, during an attack of retrosternal pain, of high grade impairment of blood flow through the innominate and through the right coronary arteries and aortic insufficiency in a patient with hypertension, was dissecting aneurysm. Sudden death was attributed to rupture of the aneurysm into the pericardial sac.

The postmortem examination was performed by Dr. G. H. Hauser, Mercy Hospital, to whom we are indebted for the use of the material.

The significant postmortem findings were confined to the heart and systemic aorta. No details of the findings in other viscera will be described.

The pericardial cavity contained 150 c. c. of liquid pure blood and a large red antemortem blood clot which, when removed, left the pericardial surfaces smooth and glistening. These caused marked cardiac tamponade. A perforation of the intra-pericardial portion of the ascending portion of the arch of the systemic aorta was found in the right anterolateral portion about 2.5 cm. above the root of the aorta. The perforation measured 0.2 cm. in diameter. The heart weighed 550 gm. The chambers were not dilated. The left ventricle measured 1.7 cm. and the right ventricle measured 0.4 cm. All valves appeared normal. About 0.5 cm. above the aortic semilunar valves, there was a circumferential laceration of the intima which measured about 1 cm. in length. A probe placed into this laceration showed that there was a communication with a newly formed channel caused by a dissection of the media. This channel was exposed and found to include about two-thirds of the entire circumference of the aorta. The portion which was spared was located posteriorly. The dissection extended proximally to the root of the aorta and distally to a point several centimeters beyond the left subclavian. The central portion of the proximal dissection extended to the intra-aortic portion of the right coronary artery and caused compression of this vessel. Distally, the dissection followed along the innominate artery for a distance of 2 cm. and caused a reduction of its lumen which on cross-section presented only a crescent-shaped slit. Some dissection also involved the left common carotid, reducing the lumen of this vessel by about one-third. No other important vessels arising from the aorta were involved. Serial cross-sections through the coronary arteries revealed patches of atherosclerosis with moderate reduction in the lumen at some points, but no anatomic occlusions were present. The right and left coronaries were about equally involved in the process.

SUMMARY

The fundamental disease in the patient was an essential hypertension resulting in left ventricular hypertrophy. As a complication, there was a dissecting aneurysm whose origin was in the ascending portion of the arch of the aorta, which, during its course of dissection, also involved the right coronary artery, innominate artery and, to a minor extent, the left common carotid artery. The immediate cause of death was rupture of the aorta into the pericardial cavity resulting in cardiac tamponade.

CASE No. 2

The patient is a white male, 41 years of age, who entered the hospital with chief complaint of inability to use his arms. About 1925 he noticed that in doing tedious work, such as pointing stone, his hands began to shake. This continued until 1927, at which time he noticed that while using his arms in work his muscles would "lock" when gripping an object. About 1929 he noticed a weakness in the muscles which controlled the wrist. In 1932 his muscles began to twitch and shortly thereafter he noticed that the muscles which twitched began to degenerate. This began in the extensors of the hand and later involved the scapular group, biceps and triceps. Simultaneously with the muscular twitching and degeneration there was associated a soreness in the muscles. Chilly sensations were also manifest. Also about this time there was a constant tired feeling in the back of the neck and upper portion of the thoracic vertebrae.

Review of systems was essentially negative. The past history was negative except for a history of dengue fever in 1914. The family history revealed that his father had a weakness in one of his legs in early life which cleared up after eating raw wheat for a number of years. Social history revealed that the patient has been a stone cutter since 1914. In 1915 he went to Arizona because of a possible acid-fast infection. While there he worked in

a copper smelter where it was necessary to wear a gas mask. He would frequently remove his gas mask to smoke, thus inhaling the fumes.

Positive physical findings were limited to the upper extremity. There was marked atrophy of the muscles of the shoulder girdle, both arms and forearms excepting the brachioradialis on the left and those muscles supplied by the ulnar nerve in the forearm and hands. The last named muscles had to some extent a loss of power. Deep tendon reflexes of the upper extremity were absent. No sensory changes or abnormal reflexes were present. Muscle tests coincided with the obvious muscular atrophy. The abdominal reflexes and those of the lower extremity were present and equal. No abnormal reflexes or other significant neurologic signs were present.

Laboratory Findings: Blood picture within normal limits. This included total white blood cells, red blood cells, differential, hematocrit, and hemoglobin. There was no red blood cell stippling or toxic degeneration of the white blood cells. The Wassermann (blood and spinal) was negative. Gastric analysis was within normal limits.

DISCUSSION

From the physical and neurological examination it was evident that there was only motor involvement. This was a primary spinal cord change. There was an absence of any sign of posterior, lateral column or pyramidal tract involvement. From these few simple facts one can conclude that there was at this time only anterior horn cell involvement. Whether or not there will be developing signs of other tract involvement in the future is questionable. Therefore our diagnosis at this time is progressive spinal muscular dystrophy.

MERCY HOSPITAL
New Orleans

The April meeting of the staff was called to order by Dr. T. F. Kirn at 8:15 p. m. in the lecture room of the hospital.

Dr. Loria presented a motion picture of cholecystectomy in technicolor. The evaluation of the procedure was reviewed; three points were stressed, namely, the anesthetic, exposure, and good surgical technic.

The essayist prefers spinal for anesthetic and multiple retractors for exposure. Under surgical technic he described three methods: (a) fundus to cystic duct (this produces bleeding at bed); (b) retrograde (most frequently used); (c) method of Thorac, of Chicago, and P. Brown, of Berlin. He uses the retrograde method. Although the paper was a presentation of technic, cholecystectomy was discussed by Drs. Monte and Boyce.

Dr. Stadiem then spoke on "Status of Endocrine Therapy in Gynecology" and gave a very interesting talk, discussing those endocrines to be used and those to avoid.

Deaths of the month were reviewed by Dr. Monte and discussed by the staff. Mortality investigation was read and approved on motion by Dr. Monte, seconded by Dr. Vedrenne.

Dr. Ashton Thomas advised the staff of Eli Lilly's trip through their laboratories, the expense being $25.35 which includes train fare and a ticket to the Kentucky Derby. He requested that those wishing to attend, kindly mail their checks to him or to Dr. Zander.

Meeting adjourned at 9:30, following which refreshments were served in the cafeteria of the hospital.

N. J. Tessitore, M. D., Sec.

SOUTHERN BAPTIST HOSPITAL
New Orleans

The regular monthly meeting of the Clinical Staff was held in the Staff Room of the Hospital on Tuesday, April 29, at 8 p. m. The following program was presented: "Preliminary Report of the Blood Plasma" by Dr. J. W. Davenport; "Case of Hypoglycemia Simulating Epilepsy" by Dr. Robert Winter, discussed by Dr. E. Z. Browne; "Death Report" by Dr. Bert DeBard.

TOURO INFIRMARY
New Orleans

The regular monthly meeting of the Medical Staff was held Wednesday, April 9. The program was put on by the residents of the hospital. The first presentation was by Dr. Finn, resident in surgery, and dealt with "Perforated Appendicitis and Sulfanilamide." This paper was followed by one on "The Use of Stilbestrol to Inhibit Lactation" given by two residents in obstetrics, Drs. Evri Mendel and Allan Goldman. Dr. Tom Weiss, resident in pathology, spoke on "The Value of the Culture for Diagnosing Gonococcal Infections." The last subject that was discussed had to do with "Case Reports of Typhoid Fever," a coordinated study by Drs. John Dyer and Robert Haspel.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

May 1. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.

May 5. Orleans Parish Medical Society Board of Directors, 8 p. m.
Clinico-pathologic Conference, Hotel Dieu, 8:15 p. m.

May 6. Eye, Ear, Nose and Throat Staff, 8 p. m.

May 7. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Hutchinson Memorial Clinic Staff, 8 p. m.
Mercy Hospital Staff, 8 p. m.

May 12. Orleans Parish Medical Society, 8 p. m.

May 13. Eye, Ear, Nose and Throat Society, 8 p. m.
May 14. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Touro Infirmary Staff, 8 p. m.
Woman's Auxiliary, Orleans Club, 3 p. m.
May 15. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.
May 16. Scientific Meeting, Orleans Parish Medical Society with the New Orleans Gynecological and Obstetrical Society, 8 p. m.
I. C. R. R. Hospital Staff, 12 noon.
May 19. Hotel Dieu Staff, 8 p. m.
Clinico-pathologic Conference, Baptist Hospital, 8 p. m.
May 20. Charity Hospital Medical Staff, 8 p. m.
May 21. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Charity Hospital Surgical Staff, 8 p. m.
The Orleans Tuberculosis Hospital Staff, 8 p. m.
May 22. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.
May 27. Baptist Hospital Staff, 8 p. m.
May 28. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
French Hospital Staff, 8 p. m.
May 30. L. S. U. Faculty Club, 8. m.
New Orleans Dispensary for Women and Children Staff, 8 p. m.

NEWS ITEMS

Dr. Conrad G. Collins addressed the postgraduate assembly of the Southeastern Surgical Congress in Richmond, March 10.

Dr. Hilliard E. Miller was recently elected president of the American Gynecological Club, an organization with thirty American and ten foreign members. The next meeting will be held in New Orleans, February, 1942.

Dr. B. Bernard Weinstein was recently elected first grand chancellor of Phi Lambda Kappa, national medical fraternity.

Two members of the Society addressed the recent meeting of the Rapides Medical Society. Dr. Gilbert C. Anderson presented a paper on the "Management of Acute Cerebral Emergencies." Dr. Mims Gage presented a paper on "Acute Thrombotic Surgery."

Drs. C. Grenes Cole, Conrad G. Collins, C. Gordon Johnson, P. T. Talbot, and T. A. Watters attended a meeting of the Washington Parish Medical Society, Bogalusa, February 27. Dr. Johnson presented a paper on "Pelvic Pain."

Dr. Marx D. Sterbcow was recently installed as president of the Young Men's Progressive Club. Dr. Sydney Jacobs was toastmaster at the meeting.

Dr. J. O. Weilbaecher, Jr. presided at the recent meeting of the New Orleans Graduate Medical Assembly.

The following members of the Orleans Parish Medical Society presented papers at the Clarksdale and Six Counties Medical Society in Clarksdale, March 12: Dr. Donovan C. Browne, "Chronic Ulcerative Colitis—Its Diagnosis and Treatment"; Dr. C. Barrett Kennedy, "Seborrheic Dermatitis and Acne Vulgaris"; Dr. Eugene B. Vickery, "Modern Chemotherapy of the Urinary Tract"; Dr. Ambrose Storck, "Preventive and Prophylactic Aspects of Penetrating Wounds of the Abdomen."

Dr. T. A. Watters presented a paper on "Sexual Difficulties in Women" at the recent meeting of the Washington Parish Medical Society in Bogalusa.

At a recent meeting in Atlanta of psychiatrists serving on the Medical Advisory Board of the Fourth Corps Area, Dr. T. A. Watters spoke on "Schizophrenic and Related Personalities."

Dr. Alton Ochsner was named president-elect of the Southeastern Surgical Congress.

Dr. Ochsner presented a paper on the "Recent Developments and Modern Management of Ulcer of the Stomach and Duodenum with Special Reference to Hemorrhage," at the Sectional Meeting of the American College of Surgeons in Pittsburgh, March 17-19.

At a recent meeting of the Southeastern Branch of the American Urological Association at Jacksonville, Dr. Robert F. Sharp was elected to the executive committee. Other members attending this meeting were Drs. Hugh T. Beacham, William A. Reed and Eugene B. Vickery.

Dr. Daniel N. Silverman addressed the Harris County Medical Society, in Houston on March 19. The title of his paper was "The Application of Plasma Therapy to Gastrointestinal Diseases."

TREASURER'S REPORT

Bank balance, February 28, 1941	$5,504.91
March credits	1,774,37
Total credits	$7,279.28
March expenditures	1,106.14
Actual book balance, March 31, 1941	$6,173.14

Edwin L. Zander, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

CALENDAR

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
East Baton Rouge	Second Wednesday of every month	Baton Rouge
Morehouse	Second Tuesday of every month	Bastrop
Orleans	Second Monday of every month	New Orleans
Sabine	First Wednesday of every month	
Second District	Third Thursday of every month	

NEW OFFICERS

Dr. Emmet L. Irwin, New Orleans, was selected president-elect by the State Medical Society at the Shreveport meeting. Dr. R. T. Lucas, of Shreveport, was selected first vice-president, and he and other officers, except the president, were installed Wednesday morning, April 23. Dr. C. Grenes Cole retired as president, and Dr. King Rand, Alexandria, took office as president this year.

Other officers selected by the House of Delegates are: Dr. H. B. Alsobrook, New Orleans, second vice-president; Dr. R. F. Sharp, New Orleans, third vice-president. Dr. J. Q. Graves, Monroe, was elected delegate to the American Medical Association, with Dr. Boni de Laureal, New Orleans, as alternate.

Four of the eight state Councilors now serving came up for re-election and were unanimously returned to their offices for two years. They are: Third District, Dr. C. C. deGravelles, New Iberia; Sixth District, Dr. Rhett McMahon, Baton Rouge; Seventh District, Dr. Claude A. Martin, Welsh; Eighth District, Dr. W. F. Couvillion, Marksville.

The following committees were elected: Scientific Work; Dr. P. T. Talbot, chairman; Drs. A. E. Fossier and F. E. LeJeune. Public Policy and Legislation: Dr. R. B. Harrison, chairman; Drs. H. B. Alsobrook, Rhett McMahon, King Rand (president); P. T. Talbot, (secretary-treasurer). Journal: Drs. H. W. Kostmayer and L. A. Le Doux to succeed themselves, Dr. James K. Howles to serve the unexpired term of Dr. Lanford. Medical Defense: Dr. W. A. Ellender.

As the list of officers has been published after the Journal had gone to press, no further details could be given at this time but will be elaborated on in the next issue.

LAFOURCHE VALLEY MEDICAL SOCIETY

A meeting was held on March 26, 1941, in Thibodaux at the Ridge Cafe. The following program was presented:

"Differential Diagnosis of Blood Dyscrasias," by Dr. C. J. Tripoli; "Some Interesting Observations in the Use of the Gastroscope," by Dr. Donovan C. Browne.

After a very interesting and liberal discussion there was served a sumptuous meal. A fine attendance added zest to an enjoyable evening. The State Society and Orleans Parish Medical Society were represented by Drs. C. Grenes Cole, H. R. Unsworth, Robert A. Katz and P. T. Talbot, in addition to the essayists.

PLASMA BANK

The Baptist Hospital is ready to furnish human plasma for intravenous therapy, prepared according to the method advocated by the National Institute of Health, Washington, D. C. This plasma is prepared and labeled according to type, and also pooled. Plasma is prepared in undiluted form; and also 50 per cent plasma with saline; and 50 per cent plasma with 5 per cent dextrose, in saline. The undiluted plasma is kept according to separate type; and the 50 per cent plasma is all types pooled.

The price is $35.00 for a pint of undiluted plasma, and $25.00 for a pint of 50 per cent plasma with saline, or saline and dextrose.

If a recipient will furnish the Hospital with blood donors to replace the plasma, we will credit the account with $5.00 for each donor whose blood is taken, not to exceed four donors in any one case.

DRAFT EXAMINATIONS

The following is the report of the examinations of prospective draftees in the state of Louisiana, as of March 27, 1941.

	CALLED		REJECTED		INDUCTED	
	White	Colored	White	Colored	White	Colored
Call No. 1.....	336	156	19	5	317	151
Call No. 2.....	649	460	35	21	607	439
Call No. 3.....1618		470	81	19	1483	405
Call No. 4.....1050		177	43	11	780	150
Total 3653		1263	178	56	3187	1145

Total white rejections.....4.9 per cent
Total colored rejections.....4.4 per cent
Average rejections .....4.8 per cent

To March 1, 1941:	White	Col'd.
Physically examined by L. B. examining physicians	9639	8132
Number passing physical examination	6031	5127
Per cent passing	62.56	63.04
Per cent failing	37.44	36.96
Total per cent failing to pass physical examination by examniing physicians and induction station	42.37	41.36

I AM AN AMERICAN DAY

The President of the United States, at the request of Congress, has issued a proclamation making May 18 the "I Am An American Day." In celebration of this day, numerous ceremonies and celebrations sponsored by national local organizations of a patriotic, civil and fraternal type will be held throughout the country.

NEWS ITEMS

Dr. W. W. Leake, former superintendent of Charity Hospital for a period of seven years and for many years director of the I. C. Hospital, has been made chief surgeon of the I. C. Railroad. Dr. Leake will make his headquarters in Chicago and will leave New Orleans about the first of May.

Dr. Henry W. E. Walther spoke before the Northeastern Mississippi Medical Society, at Tupelo, on April 14, the subject being "Spastic Ureteritis in Women."

The seventeenth annual convention of the Louisiana Hospital Association was held in New Orleans April 16-19, 1941, with Dr. A. J. Hockett presiding. A most interesting program was presented.

The eighth annual meeting of the American Rheumatism Association will be held at the Hotel Cleveland, Cleveland, Ohio, June 2, starting at 9 o'clock. Following the day's session the annual dinner will be held at 7:30. An interesting program is provided for those who are interested in the problems of arthritis and rheumatoid conditions in general.

The seventeenth scientific meetings of the American Heart Association will be held May 30-31, 1941, at the Hotel Statler, Cleveland, Ohio.

The annual meeting of the American Association for the Study of Goiter will be held in the Hotel Statler, Boston, Massachusetts, May 12-14, 1941, instead of the date originally announced.

The American Medical Golfing Association's Twenty-Seventh Annual Tournament will be held at Cleveland Country Club-Pepper Pike Club, Cleveland, Ohio, Monday, June 2, 1941. Two famous championship courses and a beautiful clubhouse await the nation's medical golfers in Cleveland on the occasion of the A. M. A. Convention.

Some 250 of the 1,413 Fellows of the A. M. G. A. are expected to take part in this 36-hole competition. Each contestant will play both courses. The hours for teeing off are from 7:30 a. m. to 2:00 p. m.

The sixty prizes, in the nine events, will be distributed after the banquet at the Cleveland Country Clubhouse at 7:00 p. m.

Plans are on foot to have a bowling tournament during the next meeting of the American Medical Association. It is hoped that teams can be formed representing various states. Physicians who are interested in bowling should contact Dr. Lewis W. Bremerman, 1709 West 8th Street, Los Angeles, California.

The forty-third annual meeting of the Medical Library Association will be held at the University of Michigan Medical School, Ann Arbor, Michigan, on Thursday, Friday and Saturday, May 29-31, 1941, under the presidency of Col. Harold W. Jones, of the Army Medical Library, Washington, D. C. Hotel headquarters will be at the Michigan Union. The program will include papers on the Cooperation of Libraries, Union Catalogues, Medical History, and Industrial Medicine.

The annual scientific meeting of the National Gastroenterological Association will be held in New York, May 13-16, 1941, with headquarters at the Hotel Commodore.

LOUISIANA CONFERENCE OF SOCIAL WELFARE

The annual meeting will be held in New Orleans at the Jung Hotel, May 1-3. An interesting and variegated program has been provided for this meeting.

INFECTIOUS DISEASES IN LOUISIANA

The morbidity report of the Bureau of Epidemiology of the Louisiana State Department of Health for the week ending March 15 showed the following diseases in numbers greater than ten: 125 cases of syphilis, 77 of gonorrhea, 76 of influenza, 61 of measles, 34 of pulmonary tuberculosis, 33 of pneumonia, 14 of scarlet fever, 13 of cancer and 10 of chickenpox. A case of poliomyelitis was reported from St. Martin Parish and two cases of tularemia from St. James. For the next week ending March 22 there were 136 cases of syphilis, 120 of measles, 43 of chickenpox, 39 of pneumonia, 29 of gonorrhea, 22 of hookworm, 16 of cancer, and 13 of whooping cough. The Parish of Iberville reported a case of typhus fever. The large number of cases of measles should be noted; this must be a nationwide epidemic as large numbers of cases are being reported all

over the United States. For the thirteenth week of the year, ending March 29, there were listed 100 cases of syphilis, 69 of measles, 39 of pneumonia, 33 of pulmonary tuberculosis, 19 of gonorrhea, 16 of hookworm and of cancer, 15 of chickenpox and 12 of whooping cough. Of the rare diseases, smallpox was reported in one instance in Caddo Parish. For the week closing April 5, 145 cases of syphilis were listed, followed by 94 of measles, 84 of gonorrhea, 27 of pneumonia, 18 of chickenpox, 14 of pulmonary tuberculosis, 13 of cancer, and 11 each of influenza and rabies (in animals). Two cases of poliomyelitis were reported from Lincoln, and one of typhus fever in Orleans. For the week ending April 12, for the first time in many weeks some disease other than syphilis occurred in greatest number in Louisiana, 167 cases of measles being reported; followed by 148 of syphilis, 35 of gonorrhea, 30 of pneumonia, 28 of septic sore throat, 22 of hookworm, 20 of influenza, 16 of pulmonary tuberculosis, 15 of malaria, and 11 of chickenpox. Smallpox was found in one instance in Orleans Parish; one case of tularemia was also reported.

HEALTH OF NEW ORLEANS

The Bureau of the Census, U. S. Department of Commerce, reports that for the week ending March 15 there occurred 144 deaths in the City of New Orleans as contrasted with 147 deaths the previous week; of these 89 were in the white and 55 in the negro population, and 17 in children under one year of age. In the following week, ending March 22, 149 deaths took place, apportioned 80 white and 69 negro, with 17 deaths in infants. For the week ending March 29, 136 deaths were reported, of which 8 took place in infants, divided 88 white and 48 negro. There was a sharp drop in the number of deaths in the week ending April 5, 116 citizens expiring, due in part to the fact that only three deaths occurred in children under one year of age. The drop in the death rate was about equal in both races.

WOMAN'S AUXILIARY

Louisiana State Medical Society

President—Mrs. Aynaud F. Hebert, New Orleans.

President-elect—Mrs. Clarence B. Erickson, Shreveport.

First Vice-president—Mrs. H. O. Barker, Alexandria.

Second Vice-president—Mrs. Cecil O. Lorio, Baton Rouge.

Third Vice-president—Mrs. B. L. Cook, Minden.

Fourth Vice-president—Mrs. R. W. O'Donnell, Monroe.

Treasurer—Mrs. Daniel Murphy, New Orleans.

Recording Secretary — Mrs. Rhodes Spedale, Plaquemine.

Corresponding Secretary—Mrs. Charles Hume, New Orleans.

PRESIDENT'S ANNUAL REPORT

I come before you to express my appreciation for the privilege of being your president for the past year, and to render an account of my achievements.

Twelve months ago this office appeared to me as a long, long climb, but a steady application to duty and your loyal cooperation have brought us to the conclusion of another year. It has been one of pleasure, problems and anxieties, but through it all has been woven a golden thread of friendship, cooperation and understanding.

The routine work of the office has been carried out to the best of my ability. No radical changes of policy were planned or attempted. Each year the work of this office becomes greater, the problems facing the medical profession have increased our potential achievements.

As doctors' wives we should acquaint ourselves with the trends in propaganda and in proposed legislation which affect the medical profession. We are living in a time when alert intelligence and devoted attention afford the only hope of security.

If every Parish Medical Society should announce its desire for an auxiliary, not only would its own membership be increased but, also, a decided change in health programs in its community would be noted. The Auxiliary, more than any other woman's organization, is informed on health questions, has the best interest of the medical profession at heart, loves its traditions and ideals and is determined to uphold its high standards.

At the beginning of our fiscal year, the program was submitted to the State President of the Medical Society, Dr. C. Grenes Cole, and our Advisory Council, Dr. John H. Musser, Chairman, and Dr. Paul D. Abramson. The activities for the year have included: Organization, periodic health examinations, Hygeia, aid to indigent physicians' fund, anti-tuberculosis campaign, doctor's day, anti-cancer campaign and circulation of bulletin. During my term of office I have enjoyed the fullest cooperation from our Advisory Council and from every officer, committee chairman and councilor.

In planning my traveling during the year, I have tried, whenever possible, to visit the parish auxiliary at the time of their regular meeting. This necessitated trips across the State several times, aside from traveling through the state in organization work. It was my privilege to visit every auxiliary in the State, it was most gratifying to note the steady growth and interest. In

each parish I was extended a most gracious and hearty welcome, often I was an overnight guest of one of the members; I am deeply grateful for your hospitality.

This year has given me something that neither time nor adversity can take away, it has brought me some of the happiest experiences and many friendships which I shall treasure always. If anything of worth has come from this year, the credit is not mine, but belongs to all of my co-workers, from the official family to the newest member in the newest parish auxiliary. To all of them go my heartfelt thanks, not only for their inspiring cooperation, but also for the supreme privilege of serving them.

The outstanding event of the year was the visit of our National and Southern Presidents, Mrs. V. E. Holcombe and Mrs. M. Pinson Neal, who inspired us with their vision of Auxiliary work. Our personal contact with their gracious personalities makes us appreciate the caliber of our National and Southern officers.

One of the joyful anticipations of Auxiliary members each year is the State Convention with its annual opportunity for friendly greetings, and exchange of ideas for further developments of our beloved organization. An inspiration received at the State Convention is often the background for the greater progress in a parish organization. Much credit is due the general chairman, Mrs. J. E. Heard and her co-workers for a most delightful convention.

At the close of this report is appended a detailed list of the work done throughout the year.

Organization—Mrs. W. D. Simmons, Chairman, with the assistance of our Councilors, is pleased to announce the organization of four new Auxiliaries, namely: East Baton Rouge, Iberia, Ascension and Acadia parishes. We now have a total membership of 736, an increase of 140 over last year.

Public Relations—Mrs. John D. Frazar, Chairman, mailed out over one hundred communications to parish auxiliaries in the form of letters, questionnaires and postal cards in regards to public relations work. Seventeen parishes have been active, they report having talks by local physicians, some subjects used were: Medical care of soldiers, platform of the A. M. A., cancer, maternal welfare, socialized medicine and health lectures to P. T. A. Every organization in the state was reached in some way by chairmen of this committee.

Program—Mrs. A. G. McHenry, Chairman, sent the program suggestions given by National, to all parish auxiliaries. Eighteen meetings were held during the year dealing with health subjects, they were: Tuberculosis, current events in medicine, maternal welfare, articles from Hygeia and the Bulletin, and parliamentary law study. Thirteen essays on health were given in high schools. Two parish auxiliaries had Christmas parties and one an annual Garden party.

Hygeia—Mrs. Creighton Shute, Chairman. Our efforts were to have every auxiliary member a reader of Hygeia and we have placed it in schools, libraries, doctors' offices and beauty salons, and auxiliaries have sponsored school essay contests. The Chairman reports 116 subscriptions to Hygeia.

Indigent Physicians' Fund—Mrs. W. R. Harwell, Chairman, reports contributions from eight parishes, total amount $40.00.

Exhibits—Mrs. John S. Dunn, Chairman, sent letters to all Parish presidents explaining the need for their having an exhibit at the State Medical Convention, and the forms these might take. Literature sent out by the National Chairman of Exhibits was distributed. A State Exhibit has been prepared, showing the projects of the auxiliary, and it will be sent to the annual meeting of the Woman's Auxiliary to the A. M. A.

Historian—Mrs. Edgar Burns, Chairman, reports the history of the State Auxiliary from its organization in 1929 up to May, 1940, which was written up and placed on file with the National Auxiliary records to be published in book form at some future time with the history of other State Auxiliaries. A new History Book has been started and the Parish Auxiliaries have cooperated by sending material.

Press and Publicity—Mrs. J. W. Rosenthal, Chairman, has published news concerning the activities of parish auxiliaries each month; also, the report of A. M. A. Convention and the Exhibits of A. M. A.; an article on Public Relations and on the Bulletin. We wish to thank the New Orleans Medical and Surgical Journal and Dr. P. T. Talbot, manager, for the courtesies extended us.

Archives—Mrs. Dan Silverman, Chairman, reports having filed all data and material given her.

Bulletin—Mrs. Jules M. Davidson, Circulation Chairman, wrote each parish auxiliary president, sending literature and suggesting that chairmen be appointed. Every effort was put forth in trying to interest each member. Our state quota was 140. We secured 48 subscriptions.

Printing and Supplies—Mrs. Rhodes Spedale, Chairman, had 800 Year Books printed and mailed one to each member of the State Auxiliary, to National and Southern Presidents, Advisory Council, President of State Medical Society and the New Orleans Medical and Surgical Journal.

Doctors' Day—Mrs. J. Earl Clayton, Chairman, reports all parish auxiliaries observed Doctor's Day with appropriate ceremonies.

Legislation—Mrs. C. Grenes Cole, Chairman. National programs on Legislation were sent to all parish auxiliaries. The Louisiana State Medical Society asked the auxiliary to refrain from taking part in, or sponsoring any matters pertaining to legislation. This Committee has had nothing before it for consideration.

Revision of By-Laws—Mrs. James W. Warren, Chairman. There has been no request for a change in the by-laws of the State Auxiliary this year, therefore she has no report.

We have 24 auxiliaries, their meetings are enthusiastic and well attended. The philanthropic activities carried on by our auxiliaries are many and varied, practically all of them having a medical significance. They include the making of layettes, donation of eye glasses for indigent children, assistance in anti-tubercular and anti-cancer campaigns, sale of Christmas Seals and also Easter Seals for Crippled Children's Association, Red Cross work such as sewing, knitting, and making surgical dressings. Several auxiliaries gave donations toward the British Ambulance Fund and assistance to other worthwhile causes.

I have traveled 6,201 miles in visiting and organizing parish auxiliaries. During the year I have written 589 letters, 235 postal cards and sent out Delegate and Alternate cards. I wrote an article for the winter News Bulletin and one for the Convention issue. I have written reports for each of the board meetings, including that of the National board. A state Executive Board meeting was held on February 6, with an attendance of twenty.

Each parish president was sent the four issues of the News Bulletin and 24 copies of the Revised Handbook were distributed among the newer officers and chairmen.

A Corresponding Secretary, Mrs. Herbert Cannon, was appointed. After a short time it was necessary for her to resign.

I commend our treasurer, Mrs. M. C. Wiginton, for the excellent work she has done throughout the year.

I wish to express my appreciation to the Recording Secretary, Mrs. P. A. Donaldson, for being present at both Executive Board meetings and recording same so efficiently.

Thanks are extended to Mrs. Arthur Herold for the magnificent way in which she has served as Parliamentarian.

Again thanks and continued success for my successor, Mrs. Aynaud Hébert of New Orleans.

Mrs. Roy Carl Young, President.

TANGIPAHOA PARISH

The Woman's Auxiliary to the Tangipahoa Medical Society entertained on February 13, at a delightful tea honoring the State President, Mrs. Roy Carl Young of Covington, at the home of Mrs. M. C. Wiginton, Hammond, La.

Mrs. V. J. Gautreaux, President, presided over the meeting and musical program which followed. Mrs. Young gave a splendid talk on "The Place Which the Doctor's Wife May Hold in the Community," and the help given to its members by the Woman's Auxiliary.

Following the meeting a musical program and tea were enjoyed by the guests. Among those present were members of Orleans Parish, Iberville, St. Tammany and Second District. It was a delightful affair.

Respectfully submitted,
Mrs. Edgar Burns.

ASCENSION PARISH

The wives of the Ascension Parish doctors were invited to a "Coffee" given by Mrs. Rhodes Spedale of Plaquemine, in honor of Mrs. Roy Carl Young, President of the Woman's Auxiliary to the Louisiana State Medical Society.

Much to our surprise Mrs. Martin suggested that Ascension Parish organize while Mrs. Young was with us. Since no plans had been made for these ladies to organize, Mrs. Baker suggested that organization be postponed until permission is obtained from the Medical Society. Mrs. Martin stated that the doctors had no objections and to organize now, and should the doctors object they could always disband.

Mrs. Young then outlined aims and purposes of the auxiliary and procedure of organization followed.

Mrs. D. T. Martin of Donaldsonville was elected President; Mrs. Percy LeBlanc, Donaldsonville, Vice-president; Mrs. M. Epstein of Gonzales, Secretary and Treasurer.

Mrs. Young then turned the meeting over to Mrs. Martin. Mrs. Martin's first motion was to appoint Mrs. F. E. Baker, of Gonzales, as Publicity Chairman.

It was decided that a meeting be held at the home of the President on Tuesday, March 11, to draw up the constitution and by-laws, to collect dues, to appoint delegates to the convention which was held in Shreveport, April 21-23, and to select a regular meeting day.

Due to the wives accompanyinng their husbands to the Postgraduate Medical Assembly meeting in New Orleans, Mrs. F. E. Baker, Gonzales, Mrs. M. Epstein, Gonzales, Mrs. D. T. Martin, Donaldsonville, and Mrs. E. A. Schexnayder, Donaldsonville, were the only ones present.

Mrs. Young then most heartily welcomed the Woman's Auxiliary to the Ascension Parish Medical Society into the State Auxiliary and wished them many happy and interesting hours of Auxiliary work together.

Respectfully submitted,
Zoe Spedale, Acting Secretary.

On Tuesday, March 11, 1941, the Woman's Auxiliary to the Louisiana State Medical Society of Ascension Parish met at the home of Mrs. Dawson Martin in Donaldsonville.

The proposed constitution and by-laws were read and set aside for further study before adoption.

Mrs. Martin was appointed as delegate to the convention in Shreveport, with Mrs. Percy Le Blanc acting as alternate.

The women selected the second Tuesday in each month as their regular meeting day; the meetings to be held at the homes in alphabetical order.

The dues were collected for the year from Mesdames Dawson Martin, Percy H. LeBlanc, Nelson A. Cox, H. A. Folse, Myer Epstein, and F. E. Baker.

Visitors from other towns were Mrs. Rhodes J. Spedale, of Plaquemine, and Mrs. Frank O. Tomeny of White Castle.

Ruth Baker,

Publicity Chairman.

ACADIA PARISH

Holding an organization meeting for wives of the doctors of Acadia Parish, a very interesting and representative gathering was present at the home of Dr. and Mrs. J. P. Mauboules in Rayne on Tuesday afternoon for an enjoyed session.

Mrs. Young, of Covington, State President of the Louisiana auxiliary unit of the Medical Association, was a special guest for the afternoon, coming to Rayne to assist with the formation of the Acadia parish organization. She outlined the plans and purposes of the new unit and complimented the Acadia group upon such a promising entry into this new line of activity. She was accompanied to Rayne by Mrs. Simmons and Mrs. Jones, both of Covington, who were special guests for the afternoon.

Officers elected who will serve the new parish organization are as follows: Mrs. J. P. Mauboules of Rayne, President; Mrs. H. L. Gardiner of Crowley, Vice-president; Mrs. E. C. Faulk of Rayne, Treasurer; and Mrs. L. L. Kahn of Rayne, Secretary. It was decided that regular meetings will be held on the second Tuesday of each month, these sessions to alternate between the various towns in the parish. The twelve members present for the meeting held Tuesday afternoon included: Mrs. H. L. Gardiner, Mrs. E. S. Peterman, Mrs. F. C. Winn, Mrs. J. W. Faulk, Mrs. A. R. Morgan all of Crowley; Mrs. J. S. Bailey and Mrs. C. L. Keller of Church Point; Mrs. G. G. Fontenot, Sr. of Morse; Mrs. E. C. Faulk, Mrs. J. P. Mauboules, and Mrs. L. L. Kahn of Rayne, and Mrs. C. E. Brunt of Iota.

This is the *LAST CALL* for reservations for the Nineteenth Annual Convention of the Woman's Auxiliary to the American Medical Association which will be held at Hotel Carter in Cleveland, June 2-6. All Cleveland extends a hearty welcome to you!

Mrs. Jonas W. Rosenthal,

Press and Publicity Chairman.

BOOK REVIEWS

Berkeley Moynihan: By Donald Bateman. New York, The Macmillan Company, 1940. Pp. 354. Price $4.00.

This is the story of the first Baron Moynihan of Leeds, in his day a surgeon of international reputation and repute. Sir Berkeley Moynihan obtained his high standing in the field of surgery because of certain attributes which were given to him by his ancestors and he supplemented these with a tremendous urge to succeed, a willingness to work hard and a desire for accomplishment.

The biography recounts first the Moynihan ancestory. Sir Berkeley was the son of an English army officer who, unlike the army officers of his day, did not have an independent income to augment his scanty salary. His father died when he was a boy so in his early life almost dire poverty was in the home of Moynihan. Through the help of a much beloved older sister, Moynihan was able to obtain a medical education and from then on his story is one of steady success. He graduated high in his medical school class, obtained some good appointments and soon he had a local reputation which brought him an excellent practice. Because of his skill as a surgeon and his apparently charming and delightful personality he rapidly forged to the front and became known all over England. On account of his love of Leeds, his hometown, and his feeling that he had certain obligations to this city, Moynihan never became a London consultant except to a minor degree. He felt proud of the fact he was a provincial surgeon and consultant. Ultimately he did have office hours several days a week in London and did a fair amount of operating there, but truly it might be said that Leeds was his first and his only love.

During his life time Sir Berkeley obtained about every honor it would be possible for an English surgeon to obtain, including a baronetcy, the first medical man appointed to the House of Lords since the time of Lister. He had one or two major ambitions which were not fulfilled, but on the whole his life was one of accomplishment and satisfaction.

In addition to literary and scientific honors, his material success was enormous. He charged large fees and he had an extremely handsome income. He was a wealthy man when he died some six days after the death of his wife who always had been his confidante, best and most admired friend, and

the maker of a home life which appears ideal.

Moynihan must have been a delightful man to meet. Extremely handsome, charming in manner, he impressed every one as a radiant personality of force and character. There were certain faults in this man which should be noted but which are slurred over by his biographer who describes him almost as a god. Moynihan was quite vain; he apparently felt and often showed his superiority over his fellowmen and he had practically no close friends. The later years of his life he dominated the meeting, the festive table or wherever a group of men, or women, was collected, an attribute which would seem to be based upon conceit and self-satisfaction. But these few, let us say eccentricities, were after all minor. He was beloved by his patients because with him always it was the patient first. He was truly a doctor, one who loved his profession and had the deepest sympathy for his sick clientele.

Sir Berkeley was an author who wrote with vigor and with charm on subjects many and varied. The excerpts from his writings are a pleasure to read. His fame does not rest upon his reputation as an author nor in fact upon any one or two or three achievements; it is based on the summation of the successful performance of everything that he undertook.

The book is well written; the author, Donald Bateman, sometimes pens such panegyrics that they somewhat lessen the value of the book, as it does not seem to be sufficiently critical. There is much mention of some of America's most distinguished surgeons; Crile and W. J. Mayo seem to have been particular friends of Sir Berkeley. It is to be noted, however, that on pages 146-7 reference is made to Dr. H. W. Keen. This most famous American surgeon's initials happen to be W. W. and not H. W. This is an insignificant error but it might be that other mistakes may have crept into the text which cannot be discovered because of lack of knowledge of England and of familiarity with British doctors and surgeons.

J. H. MUSSER, M. D.

Treatment of Rheumatism in General Practice: By W. S. C. Copeman, M. A., M. D., B. Ch. (Cantab.), F. R. C. P. (London). Baltimore, William Wood & Company, 1939. Pp. 276. Price $4.00.

As long as knowledge of rheumatism is incomplete, treatment empiric and the literature filled yearly with over two hundred new "cures," an evaluation of the literature for clinicians, by a clinician, will be a valuable addition to the literature. W. S. C. Copeman has prepared such a review and qualified this summary by his own experience plus that of others. It should serve a useful purpose in this field.

WILLIAM H. GILLENTINE, M. D.

Leprosy: By Sir Leonard Rogers, K. C. S. I., C. I. E., M. D., F. R. C. P., F. R. C. S., F. R. S., I. M. S., (Retired) and Ernest Muir, C. I. E., M. D., F. R. C. S. (Edinburgh). Baltimore, William Wood & Company, 1940. Pp. 260. Price $4.50.

The volume before us, prepared by two of the best known authorities on leprosy, probably is as comprehensive and useful as any work on this subject in any language. The comments that follow represent, largely, different viewpoints in fields where one man's opinion may be as well founded as another's. The chief criticism relates to what seems to be unwarranted optimism as to the results of medical treatment. This is well exemplified by the first paragraph in the preface to the second edition, which reads:

> "The period of fifteen years that has elapsed since the appearance of the first edition of this work has been one of unexampled progress in our knowledge of leprosy, largely due to the stimulating influence of the then recently discovered improved treatment. This has necessitated much rewriting in preparing the present edition. For example, the former main reliance on lifelong compulsory isolation in prophylaxis—the greatest reproach of modern medicine—has been nearly universally modified; uninfectious or only slightly infectious cases can be treated at out-patient clinics in the early more amenable stages, in place of being hidden until too late to benefit materially from modern treatment. Moreover, the old prison-like asylums are steadily giving place to agricultural colonies with land to cultivate, greatly to the benefit of both the health of the inmates and the finances of the institutions."

The book also expresses confidence as to the results of public health measures, a view that in the opinion of this reviewer fails to consider the natural evolution of the disease in a community. Thus, (p. 123) the alleged success of segregation in Norway and elsewhere is emphasized, but no special mention is made here of the fact that in Minnesota, without any particular attempt at control, the disease has died out.

Again (p. 23), speaking of indigenous cases in Europe we find the following: "With our present knowledge of prophylaxis and treatment it should be possible to stamp out the disease." The reviewer thinks it would be as fair to say the disease may be expected to disappear spontaneously. The somewhat discouraging experience with segregation in the Philippines is fairly set forth on page 114. Compulsory segregation (p. 138) is opposed as likely to lead to concealment of cases and this in the long run would do more harm than good. In view of the undesirability or impracticability of segregating all patients, out-patient treatment is advocated in some circumstances (p. 135).

The following (p. 121) are the principles on which prophylaxis is based:

"1. To obtain the maximum reduction in the exposure of the healthy to infection from leprosy cases.

"2. To supply the most efficient and prolonged treatment during the early amenable stages in order to prevent the development of infective conditions, or to remove the infectivity if already present.

"3. Any degree of compulsion that diminishes the very early discovery and effective treatment of the cases will do more harm than good by keeping up indefinitely the development of new infections."

The following facts the authors insist must be kept in mind:

"1. The protection of the highly susceptible children from infection is the key to the solution of the problem.

"2. Children born to and brought up by leper parents are liable to be infected to the extent of 40 per cent of their number, and in a still larger proportion if a parent is in the highly infective nodular stage.

"3. A large proportion of infections arise through close contact with advanced nodular dermal cases; these must require isolation, as was done, mainly under a voluntary system, in the successful Norway campaign.

"4. Most advanced crippled cases, the popular dread of which is quite unjustified, are little if at all infective. Yet in some countries they formed one-third or more of the total cases isolated for life in the old-type prison-like leper asylums, even in some instances under the compulsory system (see South Africa, p. 109).

"5. Treatment to be effective must be begun early and continued for two or more years, with follow-up periodical examinations to detect and treat relapses.

"6. The only way to reduce the incidence of leprosy rapidly is to trace and examine every few months over a period of at least five years—that is, over the usual period between exposure to infection and development of the first symptoms—every person who has been in close contact with any known infective leper."

The total number of lepers for the world is estimated at four or five million, with over 800,000 charged against the British Empire alone. In a table (p. 13, 14, 15) the leprosy incidence in various countries is presented. The data, however, are not to be regarded as comparable, since the time of the enumeration in different countries varies from 1911 to 1938.

Clinicians will find the book useful, though perhaps, not any more helpful than some other treatises. The tuberculoid type of leprosy about which so much is being written is adequately presented. Under "differential diagnosis" (p. 215) sarcoid is not mentioned, though it is a condition that perhaps gives rise to as much difficulty in arriving at a correct diagnosis as any other.

The authors adopt a conservative attitude on the value of histopathologic examinations in leprosy (p. 213), excluding, of course, cases in which bacilli can be demonstrated.

The authors appear to have no doubt as to the beneficial effects of chaulmoogra oil and its derivatives; a view shared by many, but one which will find many dissenters even among leprologists of large experience. One must point out, however, that they have warned against the drawing of conclusions as to the results of treatment from meager experience and from data appraised in an uncritical fashion.

The authors not always have taken the trouble to get the most recent information available, thus (p. 42) they quote the figure for patients at the National Leprosarium at Carville as of 1927, the number of patients at that time being 147. Figures doubtless available in England, in any event readily accessible, would have shown that in recent years Carville figures have averaged from 350 to 375 patients.

Again, in referring to the prevalence of the disease in Hawaii the latest figures given are for 1925 (p. 38); figures very different from those for recent years.

There is some evidence of careless proofreading; thus (p. 44) New Brunswick is spoken of as a province of Western Canada, and (p. 89) the Island of Maui is misspelled Mania; and the Town of Lahaina is misspelled Lohaina.

A statement the authors will want to correct in the next edition of the book is that in Hawaii "women are reported to be so promiscuous that they seldom know who are the fathers of their children" (p. 84).

Physicians in the South will be gratified to find references to the work of Dr. Ralph Hopkins; thus (p. 161) he is credited with data on the incubation period of the disease and (p. 112) a tribute is paid to him for his care of the patients at Carville.

G. W. McCoy, M. D.

Principles and Practice of Aviation Medicine: By Harry G. Armstrong, B. S., M. D. Baltimore, The Williams & Wilkins Company, 1939. Pp. 496. Price $6.50.

Aviation medicine is one of the newer and as yet not well defined specialities in medicine. Because of the recent accentuated interest in aviation, both civil and military, there will undoubtedly be a rather sudden increase in the number of flight-surgeons. The various diagnostic and prognostic procedures essential to this specialty are well described here, and the public health implications of air transport are discussed. Captain Armstrong has rendered a distinct service in making available for the new flight-surgeon the results of studies widely scattered in the American and European literature.

This is not a book for the general physician, but it has much of value for any physician having to do with the various aspects of aviation.

SYDNEY JACOBS, M. D.

Diabetes: By Edward L. Bortz, A. B., M. D., F. A. C. P. Philadelphia, F. A. Davis Company, 1940. Pp. 296. Price $2.50.

This small manual fulfills its function of explaining diabetes in simple and intelligible words to the average patient and yet in providing a considerable fund of information for the doctor. Chapters discussing the various aspects and attention to special phases are contributed by several authors; conventional food tables are included. Most helpful are charts graphically portraying in detail the important lessons in infection, weight control, and diet to be taught to each patient. Any physician who treats diabetes will feel repaid for having read this book and may heartily recommend it to all his diabetics.

SYDNEY JACOBS, M. D.

Office Urology: By Percy Starr Pelouze, M. D. Philadelphia, W. B. Saunders Co., 1940. Pp. 766. Price $10.00.

This book, entitled "Office Urology," offers its readers just what its name implies, namely, a full discussion of those urologic cases met with in office work. Inasmuch as Dr. Pelouze does not himself do major urologic surgery, one should not expect the book to contain any information on surgical technic. He does, however, whenever opportunity affords, offer his reader the fruit of his mature judgment and long experience as regards his evaluation of various surgical procedures. This one fact makes the work valuable to those who seek surgical information.

However, as said above, the book's chief characteristic is that it approaches urologic practice from the office viewpoint, giving a detailed description of the management of these cases in each instance. In view of this fact, and bearing in mind Dr. Pelouze's reputation as an authority, this work can unhesitatingly be recommended to students and general practitioners as being ideally suited to their purposes.

It is seldom the good fortune of any one in reading medical literature to encounter a book as humanly and entertainingly written as this one. It reflects Dr. Pelouze's personality, and, according to his own admission, was written rather casually and at the request of the publishers. It is a relief and a pleasure to find simple homely facts presented in a conversational manner, entirely devoid of fanciful theory and irrelevant detail. After all, it is just these simple facts that are so earnestly sought and seldom found by the general medical man or student in his reading. And added to this is the reassuring knowledge that every statement reflects the carefully weighed and mature judgment of a recognized authority. It is not necessary to single out specific instances to illustrate the rare instructive and entertaining qualities of the work. Suffice it to say that one may begin to read on any page and find his interest held.

In conclusion, and at the risk of appearing over enthusiastic, it is this reviewer's considered opinion that here is one of perhaps a half dozen books in all urology that deserve to be known as classics.

W. E. KITTREDGE, M. D.

Taber's Cyclopedic Medical Dictionary: By Clarence Wilbur Taber. Philadelphia, F. A. Davis Company, 1940. Price $2.50.

This valuable medical dictionary reaches out as a digest of modern medical problems. The 273 illustrations are interspersed in the context in a practical and helpful manner. A high standard for the book is naturally influenced by the wonderful reputation of the editor and his associates. Obviously, this compilation should therefore serve as a needy and ready medium for use by all members of the profession. A library or medical office would be deficient without it.

P. T. TALBOT, M. D.

Atlas of Cardioroentgenology: By Hugo Roesler, M. D., F. A. C. P. Springfield and Baltimore, Charles C Thomas, 1940. Pp. 124, illus. Price $8.50.

The author of this volume is well known from his textbook, "Clinical Roentgenology of the Cardiovascular System." The Atlas is a continuation of effort toward a better understanding of morphologic changes as visualized by the roentgen rays. The intention of the author to illustrate the anatomy and pathology of the heart and great vessels as revealed by roentgen rays has been successfully accomplished in a forceful and concise manner.

The Atlas consists of a series of 60 case reports and 166 illustrations. The history, physical examination and clinical laboratory data in so far as they pertain to the case are considered first. Reproductions of films made in the usual positions, including the oblique views, diagrams, electrocardiographic records, and finally, photographs of the heart removed at autopsy complete the case records. The reproductions of the photographs of the heart at autopsy include the same views and same positions shown on the films antemortem. In this manner, the position, anatomy and pathology of the heart on the film can be closely correlated and studied on similar views of the organ at autopsy.

The text is concise and clear and the illustrations are excellent. This volume should serve as a valuable addition to the reference library of every physician interested in the heart and vascular system.

J. N. ANÉ, M. D.

Medical Work of The Knights Hospitallers of St. John of Jerusalem: By E. E. Hume. Baltimore, Johns Hopkins Press, 1940. Pp. 371. Price $3.00.

The Knights of Saint John in the eleventh century founded a hospital in Jerusalem for the care of the indigent and the pilgrims. Shortly thereafter they established an order to guard the property and lives under their care. When they were forced to abandon Jerusalem they retreated with the Crusaders to whom they gave medical aid, and they established new centers in Cyprus and later in Rhodes and Malta. They continued to aid the pilgrims to the Holy Land and maintain an open road to Jerusalem. Napoleon forced them to abandon Malta but a century ago, at which time the order became established in Rome. The Knights were active in the first World War and now they are called into action, as bearers of medicine and spiritual aid in the second World War.

This is the first comprehensive account of the centuries of medical work performed by the Knights Hospitallers of Saint John of Jerusalem. The activities of several independent orders of Saint John are included in appendices.

The book is admirably written and thoroughly documented, a fine example of scholarly and thorough medico-historical research. It is recommended as an excellent and absorbing story characterized by the maintenance of accuracy in detail despite the dramatic appeal of the material.

B. Bernard Weinstein, M. D.

Getting Ready to Be a Mother: By Carolyn Conant Van Blarcom. New York, The Macmillan Co., 1940. Pp. 190. Price $2.50

Carefully written for the expectant mother, and well illustrated, this useful little manual can be safely recommended to the more intelligent patient.

B. Bernard Weinstein, M. D.

The Pathology of Internal Diseases: By William Boyd, M. D., LL. D., M. R. C. P., Ed., F. R. C. P., Lond., Dipl., Psych., P. R. S. C. Philadelphia, Lea & Febiger, 1940. Pp. 874. Price $10.00.

The third edition of this classic is more complete than its predecessors, but it is still as interesting to read as before. Pathology is presented not merely as a description of diseased organs seen on the postmortem table, but as a summation of the newer knowledge of anatomy, physiology, and bacteriology which the physician must understand to use intelligently the powerful therapeutic agents of today. In this book Dr. Boyd makes available to the practitioner much information ordinarily found only in varying sources. Any physician trying to understand the causes and natural history of "internal diseases" will find excellent source material here.

Sydney Jacobs, M. D.

Behind the Surgeon's Mask: By James Harpole. New York, Frederick A. Stokes Co., 1940. Pp. 308. Price $2.75.

This book is a book which was written entirely for the laity. The medical practitioner might find it of some interest to recall to his mind similar experiences which he has had and which correspond to those of Harpole. However, the book is written in medical terms of one syllable so that the lay person can understand it. It is entirely too elementary for the medical man.

Harpole has some twenty-one chapters in the book. Each chapter starts off with a little story of a personal experience that he has had, many of them dramatic and all of them interesting. After recounting the specific instance of a former patient, for example, one who needs a transfusion, describing the events that led up to this need and stating the results of the transfusion, he will then present about as much space again to a general discussion of that particular phase of medicine. In other words, he uses the anecdote as a text.

The whole book is very well done but as I say, it would not appeal particularly to the medical man; the lay individual will undoubtedly be interested in some of the episodes and emergencies that arise in a physician's every day life. Furthermore, the discussion afterwards of what was done and how it was done and why it was done will give the readers unacquainted with details of medicine a very excellent impression of how much and what a doctor can accomplish.

J. H. Musser, M. D.

Cushny's Pharmacology and Therapeutics: Edited by C. W. Edmunds, A. B., M. D., and J. A. Gunn, M. A., M. D., D. Sc., F. R. C. P. Philadelphia, Lea and Febiger, 1940. Pp. 852. Price $6.50.

Cushny's Pharmacology is revised once more, and brought up to date by Dr. C. W. Edmunds, Professor of Pharmacology, University of Michigan, and Dr. J. A. Gunn, Professor of Pharmacology, Oxford University.

This standard textbook on pharmacology continues to be one of the two most popular books in its field, and likewise one of the two most critical and scientific books on pharmacology in the English language.

The authors have kept abreast of the great amount of important research which has been done particularly in chemotherapy.

This book will continue to be used by many medical students and physicians as their textbook of pharmacology and therapeutics.

Clyde Brooks, M. D.

Applied Pharmacology: By Hugh Alister McGuigan. St. Louis. C. V. Mosby Co., 1940. Pp. 914. Price $9.00.

This textbook of pharmacology is making its bid for recognition as a first class work on this subject.

The book is well written, up to date and contains almost all the important recent discoveries in pharmacology and therapeutics, written particularly from the standpoint of the chemical aide of pharmacology.

The book is well made and contains many very valuable illustrations and charts in colors which add much to the teaching value of the book.

It seems clear that this book deserves to stand in the company of the best textbooks in this field. So as time goes on it should increase in popularity and in usefulness.

CLYDE BROOKS, M. D.

Congenital Syphilis: By Charles C. Dennie, B. S., M. D., and Sidney F. Pakula, B. S., M. D. Philadelphia, Lea & Febiger, 1940. Pp. 96. Price $8.00.

During the past few years many new facts have been added to our knowledge of congenital syphilis, and these additions have practically revolutionized our approach to both the diagnosis and treatment of this very common and important disease. Notwithstanding this fact, Drs. Dennie and Pakula are among the first to bring together all of this information into a single text. Their book is therefore quite timely, since much that has been written on the subject can only be found in the pediatric and dermatologic journals, which are usually not available to the general practitioner who first sees these cases, and thus the necessity for passing on the new concept to him becomes of vital importance.

The book is divided into twenty chapters. The first of these discusses extremely well the examination of the congenitally syphilitic infant. The second chapter is devoted to one of the most controversial subjects pertaining to the disease, namely the serologic reactions and their significance. Chapters 4 to 15 describe the pathologic picture and symptoms produced in each system of the body if invaded by the spirochete prenatally. The remaining five chapters deal with such phases of the disease as "Latent Congenital Syphilis", "Syphilis of the Third Generation."

Many pages of the text are devoted to the treatment of congenital syphilis, and this section is the most outstanding of the whole book. Not only have the authors graphically described the various drugs which have been used and advocated, as well as the correct dosage of the drugs, but they have also pointed out with emphasis and clarity the many toxic effects which should be anticipated in using all the antiluetic drugs. Especially commendable is the discussion of the treatment of congenital syphilis of the central nervous system.

The only adverse criticism to be offered is that in several instances the authors tends to be exceedingly dogmatic. There are many authorities today who do not believe that an infant or child should be treated for congenital syphilis, unless the presence of the disease can be definitely established. Dr. Dennie and Dr. Pakula, on the other hand, apparently believe that all infants born of syphilitic mothers should receive treatment, regardless of the findings in the infant.

H. P. MARKS, M. D.

Physical Diagnosis: By Ralph H. Major, M. D. Philadelphia, W. B. Saunders Co., 1940. Pp. 464. Price $5.00.

This is a second edition of a textbook that has established itself as a reliable guide in the field of physical diagnosis. There are numerous changes in the book both in illustrations and data. Although a revision has been made and new material incorporated the general structure of the book remains the same. There are several poorly constructed sentences that are noted in the book that may be misleading to the student; in a textbook on physical diagnosis this is quite an important matter. However, all things considered, it is one of the better books and can certainly be recommended.

I. L. ROBBINS, M. D.

Management of the Cardiac Patient: By William G. Leaman, Jr., M. D., F. A. C. P. Philadelphia, J. B. Lippincott Co., 1940. Pp. 705. Price $6.50.

One may begin a review of this book by remarking at once—excellent. I know of no other single volume in which an author has so successfully succeeded in combining diagnosis and treatment; the former brief but fully factual, the latter at length but in such detail as to convey clearly to the doctor the steps to be followed in the management of the individual with heart disease. The illustrations are splendid. The case reports that serve as illustrations of diagnostic problems and as the starting points of therapy in the various types of heart disease have been wisely chosen. There is an extensive section on the "Introduction of the Study of Electrocardiography." Frankly, there is no doubt but that a good many things have not been considered by the author, but this is far overshadowed by the great amount of material that he has incorporated. It is not necessary to go into a detailed account concerning the actual data of the book. One can almost assure his readers that there will be few clinical problems in cardiology that will arise in his practice but that this book will prove a valuable aid. There is, additionally, a well chosen bibliography and a good index. The book itself is well done; the paper and printing are fine. And to cap it all, it is reasonably priced as medical books go. There will be some who will point out errors, inaccuracies, omissions; undoubtedly in a second edition there will be corrections to be made; but the fact remains that in its sphere it will serve a most useful purpose and fill a want that has long been felt by the physician in general practice as well as the student at a loss as to know exactly what to do and obtaining little more than general advice from the average textbook. I heartily recommend this

book and feel it merits the consideration of the profession.

I. L. ROBBINS, M. D.

The Electrocardiogram and X-ray Configuration of the Heart: By Arthur M. Master, B. S., M. D., F. A. C. P. Philadelphia, Lea & Febiger, 1941. Pp. 222. Price $6.50.

This monograph of two hundred eleven pages is presented in atlas form and by reproductions of electrocardiograms and x-ray pictures.

The variations of the normal electrocardiograms are described, the changes that take place from childhood to middle life and the effect of changes in position of the body. Different valvular diseases, hypertension, pulmonary disease, deformities of the chest and their effects on the heart and the electrocardiogram are also described.

On p. 100, one electrocardiogram is stated to show deep Q 4. Preceding the downward deflection there is a small positive wave. It would be best to call this small R with deep S. He states on p. 138 that in right axis deviation high voltage indicates left ventricular hypertrophy. These and a few other interpretations may be questioned; however, there are many good descriptions and explanations.

The reproductions of both x-rays and electrocardiograms are well done and easy to read. Any one interested in this subject, will profit by reading this book.

J. M. BAMBER, M. D.

The Emperor's Itch: the Legend Concerning Napoleon's Affliction with Scabies: By Reuben Friedman, M. D. New York, Froben Press, 1940. Pp. 82. Price $1.50.

It would not be surprising if scabies, with its love of wars, camps and crowds, was added to the imposing list of afflications of the Emperor Napoleon. Nevertheless the author goes a long way to prove that it was not scabies that kept the hand beneath the cloak.

BARRETT KENNEDY, M. D.

PUBLICATIONS RECEIVED

The Commonwealth Fund, New York City: Plague on Us, by Geddes Smith.

F. A. Davis Company, Philadelphia: Proctology for the General Practitioner, by Frederick C. Smith, M. D., M. Sc. (Med.), F. A. P. S.

John Bale and Staples, Limited, London: Gastric and Duodenal Ulcers, by Harold Avery, D. Sc., M. B., M. R. C. P.

Harper & Brothers, New York City: Science and Seizures, by William G. Lennox, M. D.

Lea & Febiger, Philadelphia: Roentgen Interpretation, by George W. Holmes, M. D., and Howard E. Ruggles, M. D.

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